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STATISTIC AND OTHER ASPECTS OF WHOOPIING COUGH.

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Whooping cough is one of the most peculiar and fatal of the diseases which afflict the human race. It is a pestilence which has long been familiar, but about which we are still, in perhaps all vitally important respects, extremely ignorant, almost as ignorant as when Willis drew special attention to it, which was over two hundred years ago. It may safely be affirmed that little is known of its real nature, and quite as little about the way to treat it successfully. There is consequently great room for improvement in our knowledge of it, and the need for such improvement is urgent; for it is a very destructive disease, far more destructive, doubtless, than it is commonly regarded as being. That our knowledge of its nature and treatment will approach perfection in time, may we not hope? Can it be that the cause of it must remain forever a mystery? I believe not. And with the cause thoroughly understood, is it not reasonable to believe that the means of destroying it, and of counteracting its effects on the system may be discovered? Until the cause of it is definitely known, both the prevention and the treatment are likely to continue extremely imperfect. May not some one do for it at least as much as Jenner did for smallpox? Recent experiments of Pasteur and of others afford sufficient ground for entertaining the hope that a safe and effective inoculative method may be dis-

covered for preventing the occurrence of it, and not of it only, but of all other serious zymotic diseases, diseases which rarely affect the same individual more than once.

THE MORTALITY FROM THE DISEASE.

Whooping cough is not directly the cause of many deaths; it is, in fact, the direct cause of very few. In his work on the diseases of children, Vogel remarks: "Death as a direct consequence of an attack is extremely rare. Notwithstanding the numerous epidemics that I have witnessed, I am unable to recall a single instance." Nevertheless, directly or indirectly, it is, as already stated, a far more destructive disease than it is commonly supposed to be. It is, indeed, of a very grave character. Especially is it grave in the cases of very young children; among these it destroys more lives than any other disease of a contagious, or infectious nature. Thus of the 9008 deaths attributed to it in the United States during the census year ending June 1st, 1870, the number of persons under one year of age was 4424, while the number from scarlet fever was 2100, from measles 1861, and from diphtheria 1011. Convulsions, pneumonia, cholera infantum and debility were the only causes to each of which a greater number of deaths was attributed; and it is more than probable that many, very many of the deaths attributed to each of these, and to some others too, were indirectly due to it. Of children in their second year the number of deaths from it was 2086, which was greater than that from any other contagious, or infectious disease, save scarlet fever. More deaths of children under five years were attributed to it than to any other disease except cholera infantum, pneu-

monia, scarlet fever, croup, convulsions, inflammation of the brain, diarrhoea and debility. In Philadelphia there are eleven or twelve causes to each of which more deaths of children under five years of age are attributed than to it, among which are two zymotics, scarlet fever and diphtheria. But if all the deaths which are really due to it were accorded to it, the position in the list would, doubtless, be considerably more in advance. It is stated that in the city of London more deaths of children under five are caused by it than by any other disease, save pneumonia, convulsions and hydrocephalus.

THE AGE AND THE MORTALITY FROM THE DISEASE.

As is very well known, whooping cough is liable to affect persons of all ages, but is most prevalent, by far, among the young. Some children are doubtless more susceptible to the contagion of it than others. Those of about two years of age appear to be the most liable to suffer. It would seem that infants under six months are considerably less liable to be affected than those over that age. The proportion of deaths to the number of cases is far less among adolescents and adults than young children. As stated above, it is particularly fatal in very early life. Of the 9008 deaths referred to it in the United States during the census year, 4424 were of persons under one; 2086 were of persons between one and two; 1063 were of persons between two and three; 529 were of persons between three and four; 294 were of persons between four and five; 468 were of persons between five and ten; 78 were of persons between ten and fifteen; and 65 were of persons over fifteen, including one of a person of unknown age. 47 were of persons over twenty. Of the 1784 deaths attributed to the disease in Philadelphia, from 1860 to 1876 inclusive, 975 were of persons under one; 456 were of persons between one and two; 292 were of persons between two and five; 54 were of persons between ten and fifteen; and 7 were of persons over ten. Only 1 of persons over twenty was reported. According to these figures 54.65 per cent. were of persons under one year; 80.21 per cent. were of persons under two; and 96.58 per cent. were of persons under five years of age. A very small percentage, then, of the deaths are of persons over five years.

The reason why nearly all the deaths from the disease are of young children, is likely due, not to the comparative absence of it in persons over five years, but to the relative inability of the system in extreme youth to withstand the debility and still more serious conditions which it tends to induce. The proportion of cases of it, how-

ever, in persons under five, is undoubtedly very great, but just how great I am unable to say.

THE SEX AND THE MORTALITY FROM THE DISEASE.

Sex seems to have considerable to do in causing the deaths from this disease. Far more females than males die from it. Thus, of the deaths in the United States during the census year, 3987 were of males, and 5021 of females—a difference of 1034, or not far from a quarter less of the former than of the latter. Of the 1784 deaths in Philadelphia, 766 were of males, and 1018 of females; or in other words 42.93 per cent. of the former, and 57.07 per cent. of the latter. The proportion here is almost exactly 3 to 4—three deaths of males to four of females. Dr. West gives the proportion in London, as 2 to 3.

Now, it is difficult to account for the greater proportion of deaths of females than of males from the disease. Diphtheria seems to be the only other zymotic to which a considerably greater number of females than of males succumb. It is likely that more females than males contract it, but of this I am unable to speak definitely. Again, it is probable that the female system is less able to resist the disease, being weaker. And again, the disease in the female may, from constitutional peculiarities, be, as a rule, more grave in nature. It is possible, too, that the difference is attributable, in a measure, to the fact that females, even in infancy, are more closely confined to the house, and consequently denied an equal amount of fresh air.

THE SEASONS AND THE MORTALITY FROM THE DISEASE.

All contagious diseases, perhaps, are usually more prevalent in the colder than in the warmer half of the year, just as they are in the higher than in lower latitudes—a circumstance which is doubtless due in the main to the social behavior of people, and not to the effect of cold on the contagion, it, indeed, being more than probable that cold tends to render infectious germs inactive. The disease under consideration apparently does not conform well to this rule; at any rate, it does not conform to it with us as well as it does in England, in which country it is, as Dr. Fox remarks, "usually regarded as a winter and early spring disease." Thus, according to the census statistics, most deaths occur in spring, there being a rise up to the middle of May. From the middle of May the number lessens largely until August, when a rise occurs and continues until October, when a decline sets in and continues until December, when a rise begins and goes on increasing until the middle of May.

In spring there were 3042 deaths; in summer 2377; in autumn 1884; and in winter 1752. (The period at which three deaths happened is not given.) In the various States the death-curve for the year was very similar to that of the United States as a whole; and the same is true of it in the city of Philadelphia. The increased number of deaths late in summer is probably due, in a measure, to the fact that the heat of summer weakens young children, and hence, renders them less able to bear up under the disease. There is reason to believe that in children of a fair degree of strength, the weather of winter and early spring is least favorable to recovery, it being the most likely to induce complications, especially of the lungs. However favorable the meteorological conditions toward the beginning of autumn may be, when the disease occurs in a child spent by the heat of summer, and ailments induced by it, the prospect of recovery is generally bad.

THE DISEASE AND THE OTHER ZYMOTICS.

It is a somewhat common belief that the occurrence of whooping cough is closely connected with the occurrence of some other zymotics and that it is related to them. In treating of the disease in his book on the practice of medicine, Dr. Bristowe disposes of this matter as follows: "Epidemics of it are frequently associated with epidemics of scarlet fever or measles; and it is held by many that there is some kind of mysterious relation or attraction between them."

Now, I do not deem it necessary to enter into any argument to show that the disease is an independent one, for there are sufficient obvious reasons, I believe, to indicate that it is; but it may be well to examine, and see whether or not figures of mortality indicate that it and scarlet fever or measles are apt to prevail extensively, or the reverse, at one time. During the census year the proportion of deaths from scarlet fever, to the population, was particularly high in Pennsylvania, Kansas and Wisconsin, it being 160.4 to every 100,000 of the population in the first, 98.3 in the second, and 96.7 in the third State; and it was particularly low in Georgia, North Carolina, and Alabama, it being 1 to every 100,000 of the population in the first, 1.3 in the second, and 1.3 in the third State. During the same year the number of deaths from whooping cough to 100,000 of the population, was 25.7 in Pennsylvania, 33.5 in Kansas, 20 in Wisconsin, 7.8 in Georgia, 28 in North Carolina, and 13.5 in Alabama. These statistics do not indicate that where there are many deaths from scarlet fever there are many from whooping cough, and *vice*

versa. Again, in the census year, the number of deaths from measles to 100,000 of the population was 15.7 in Pennsylvania, 25 in Kansas, 14.4 in Wisconsin, 22.8 in Georgia, 8.1 in North Carolina, and 40.7 in Alabama. It is here seen that there was relatively a very large number of deaths from this disease in Alabama and Georgia, two States in which there was, as indicated above, comparatively very few deaths from whooping cough.

The following table gives the number of deaths in Philadelphia from each of the three diseases in question each year, for the fourteen years ending with 1880:—

Year.	Whooping Cough.	Measles.	Scarlet Fever.
1867	65	83	367
1868	176	108	224
1869	74	85	799
1870	105	48	956
1871	81	43	262
1872	163	143	174
1873	97	30	319
1874	74	117	354
1875	125	12	1082
1876	88	53	328
1877	81	69	379
1878	109	12	554
1879	103	8	336
1880	101	108	291

These statistics also, do not seem to show any correspondence between whooping cough and either measles or scarlet fever. Thus in 1879 there were 103 deaths from whooping cough, while there were 8 from measles, and in 1874 there were 117 deaths from measles, while there were 74 from whooping cough. Here it would seem that as the prevalence of measles lessened, that of whooping cough increased, and *vice versa*. In 1875 there was a heavy mortality from whooping cough, while that from measles was light. In 1872 and 1874, years in which the mortality from measles was very heavy, that from whooping cough was above the average in only the former. Again in 1871 there were 81 deaths from whooping cough, while there were 262 from scarlet fever; and in 1872 there were 174 deaths from scarlet fever, while there were 163 from whooping cough. Here, too, it would seem that in years in which the prevalence of scarlet fever lessened, that of whooping cough increased, and *vice versa*. In 1868 there was a heavy mortality from whooping cough, while there was a very light mortality from scarlet fever. In 1870 and 1875, years in which the mortality from scarlet fever was very heavy, the mortality from whooping cough was above the average in only the latter.

Although the view of Sydenham and his disciples, that "the constitution of the year * * * tends to produce some particular epidemic disease, and likewise to reduce all the cotemporary diseases to its own form and likeness," may be far from being entirely erroneous, it is reasonable and proper to hold that meteorological conditions influence the prevalence of scarlet fever, measles and whooping cough to a great extent similarly. This would appear to be the only weighty reason for expecting these diseases to prevail extensively, or the reverse, at one time. But meteorological conditions are not the only influences at play in determining the degree of prevalence of any contagious disease.

THE CYCLICAL NATURE OF THE DISEASE.

As is well-known, whooping cough prevails to a much greater degree some years than others. This being so, the question arises, Do the severe outbreaks of it recur periodically, or in cycles of years? I do not recall that any law of this kind has been pointed out. An examination of the mortality statistics at hand does not apparently show that there is any such. In Philadelphia there was a largely increased number of deaths every other year between 1867 and 1872, but a regular biennial excess is not observable in succeeding years. This will be apparent from the following list of the deaths yearly in Philadelphia, for the fourteen years beginning with 1867: 65; 176; 74; 105; 81; 163; 97; 74; 125; 88; 81; 109; 103; 101. As will be observed, when the number of deaths in any year is considerably above one hundred and three or the yearly average, there is generally a considerably smaller number of deaths the succeeding year, and *vice versa*.

It would appear, then, that if the disease prevails extensively one year, it may reasonably be expected that the following year it will prevail to a much less degree, and *vice versa*. The explanation of this peculiar feature of the disease may be found, I believe, in the condition of the population as regards liability to contract it. Until a year after an extensive outbreak, there are comparatively few children who are particularly susceptible to the contagion of it; and the year following one in which it has not prevailed extensively, there are many children who are particularly susceptible to the contagion of it.

REMARKS ON THE PREVENTION OF THE DISEASE.

It is the general belief of scientific physicians, that whooping cough is a disease that is always due to a specific contagion. A child never contracts it otherwise than through infection with exhalations from a person suffering from it. The

contagion floats readily in the air, and may be carried from point to point in clothing, and the like. The truth of all this can hardly be questioned.

Now, as every physician knows, the disease begins with febrile and catarrhal symptoms, which usually abate within two weeks, to be followed by others which may last for months, and of which a distressingly severe cough is the most evident. This being so, the question now arises, Is the contagion thrown off only during the first stage, or during both? It is strange that a point so important as this is not even referred to in most of the books on the practice of medicine and on hygiene. The opinion which there is ample reason for entertaining is, that the contagion is given off throughout the entire course of the disease, but more freely at first than later. In respect to this matter, Dr. West, in his lectures on the diseases of children, says: "So long as a child who has suffered from whooping cough continues to cough at all, even though only once or twice a day, I should be unwilling to restore him to the society of children who have not already had the disease." Every practitioner of experience can, probably, recall cases which arose from contagion given off by children in whom the disease was declining. Dr. Blyth, an English sanitarian, in his dictionary of hygiene and public health, makes these suggestive statements in respect to an epidemic of the disease in a workhouse which he was called on to investigate: "A woman tramping the country came into the house with a child, the latter suffering with whooping cough. Both mother and child were separated for a long time from the rest, until one day some charitable person gave a treat to the inmates, and this child and mother partook of tea at the common table in an open field, the child being on the lap of its mother. In about a week seven children who were seated at the same table, but not in contact with the child or mother, all simultaneously, or nearly so, became affected with whooping cough."

Early in the autumn of the present year a friend of the writer lost a beloved and only child from the disease, which was contracted at a family gathering, in a village of New Jersey, at which were two affected children from this city, taken there, too, with the consent of the doctor in attendance on them. At least eight of those present got it, but how many of them, or of others who got it from them, died, I do not know.

I have thought it well to dwell at some length on the fact that the disease may be communi-

cated at any of its stages, for it is one, the import of which is not duly appreciated by many parents, and not a few persons who are practicing medicine. I have not the slightest doubt but that a very large percentage of the deaths from the disease in summer and autumn, and indeed, in all the seasons, may be traced to the criminal, or what should be regarded as the criminal conduct of parents in taking their affected children, or allowing them to go where there are children liable to contract it. The school-room is a fertile source of it; and the origin of doubtless very many cases may be traced to such places as the pleasure steamboats which are found on the rivers near all large cities during the warmer half of the year, and on board of which there are often large numbers of feeble young children. Parents who are guilty of the conduct referred to, and their medical advisers too, should be dealt with severely, by law.

For several purposes, but particularly by way of duly emphasizing the wrong of aiding the propagation of the disease through having those affected with it in places where there are persons liable to contract it, and especially young children, I will append the following letter, which is a copy of one sent to the editor of a daily newspaper, for insertion in its correspondence columns, but which he, not deeming it wise to bring the information it contains to the attention of the public, or for some other reason, consigned, so far as I know, to the waste basket:—

DEAR SIR:—The practice of taking young children on frequent trips on the Schuylkill and the Delaware steamboats during the summer months, is highly commendable; it is a sanative measure of great value. But, of course, the advantages of it may be marred by making the trips very long, by failure to provide proper nourishment, and other circumstances. But I do not desire to discuss it at length. My object in writing is to call attention to the fact that it is favorable to the spread of at least one very serious contagious disease—*whooping cough*. I was made acutely alive to this danger yesterday afternoon. While on one of the steamboats on the Schuylkill, I discovered that my child was surrounded by a family of four who were suffering from the disease in question. In my opinion the lives of the scores of babies on that steamer were exposed to a grave risk. There is no other disease, except, perhaps, smallpox, which is so communicable as *whooping cough*, and among very young children it is, as statistics show, the most destructive of all contagious or infectious diseases. Now, I would say that any mother who takes her child who is suffering from this disease aboard a steamboat crowded with young children, is guilty of a serious crime. If she desires to take it out, she should take it where

she will not likely be the means of bringing disease and death to the homes of others.

Yours respectfully, T. S. S.

As may be gathered from what precedes, isolation is the chief measure for the prevention of *whooping cough*. A child who has contracted it should be kept apart completely from at least those who have never had it. It is, perhaps, out of the question to suggest that this should be undertaken by public health authorities; the patients being, as a rule, mere infants, it probably must be left in the hands of parents and guardians. Such isolation might, I think, be enjoined by law, to good purpose. Taking no precaution to prevent others from getting a serious disease like this, is entirely wrong; and allowing every one to carry it from house to house with impunity is a murderous policy.

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THE PREDISPOSITION TO TUBERCULAR DISEASE, AND THE IMPORTANCE OF STUDYING THOSE SIGNS THAT POINT TO ITS EARLY RECOGNITION, THAT PROPER TREATMENT MAY BE INSTITUTED AS ITS PROPHYLAXIS.

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It has frequently occurred to me that we are not taught with sufficient emphasis the very great importance of studying the *longevity* of disease—if I may use the expression—as a basis for *prognosis*, and also its bearing upon the early indications that show the hereditary tendency to certain affections, or those that point to an early acquired taint that may later develop disease, upon provocation. If visited by a case of *phthisis*, the question asked by the patient is not always, “Have I consumption?” “Can you cure me?” for your patient frequently knows, as well as yourself, that the balance is leaning against him; it is not the physician who will cure him that he seeks, but rather him that can prolong his life a week, or a month, or probably a year. He will ask, “what are my chances, judging from the progress this disease is making, for a prolongation of my life; what is the average length of time this disease lasts, and how am I to live in order to give myself the greatest possible chance?”

We endeavor to define a disease in its earlier stage, because we are then better able to check its course; should it progress, we can convince ourselves that its course has been rapid or slow; has been controlled or not, by our treatment;

that the future, if unaffected by treatment, will be proportionate, in its rapidity, to that with which it has already advanced. Prognosis is frequently as important as diagnosis, for while the latter detects a disease and limits it to an organ, or a system, accurately determines the degree of the deviation from health, the former takes a disease so defined, fits it to the individual, with his peculiarities and tendencies, foretells its future, and frequently anticipates, by proper treatment, its threatened dangers. In this, medicine has its true claim as a science; in *treatment* it can scarcely ever rise above an art.

Is this departing from my subject? I think not, for, if we study disease, we have to follow it on either of its roads, that towards recovery or that towards death, the one as important to us as the other; and if it is necessary for us to detect disease in order to treat it, it is equally necessary for us to foretell its course, that we may check it by timely means; or to go back still further, study its history, that we may prevent it.

Prevention, diagnosis, and prognosis are a trio inseparable; to the first I will at present call attention, limiting myself to the study of tubercular disease. How frequently we hear this expression used relative to a young man choosing a profession, "he cannot be a lawyer or a doctor, because he has a tendency to consumption," or "an indoor or sedentary occupation would be harmful to him, as his lungs are delicate." The person in question may be sound at the time, with good organs, working physiologically; what is this *something* by which that tendency to disease is known to exist? People recognize this predisposition, and not only do they believe that a peculiar appearance, a combination of conditions which we analyze and group according to their importance, predicate a tendency to disease, but they also know that proper caution may eventually eradicate such a taint. The statement is made, by no less an authority than Jaccoud, in his late work on the "Curability of Phthisis," that even this dreaded disease, at certain stages in its course, halts for a time, and by proper treatment can then be held in abeyance, or even absolutely cured; that, in fact, whether it be of a true tubercular variety (chronic), or of simple catarrhal nature, its tendency is that of all disease, towards cure, provided the patient's condition and his surroundings are such as will give it an impetus in that direction. He tells us that the tendency to undergo caseous degeneration, or the softening of a tubercular nodule, is counterbalanced by an endeavor to convert it into a fibroid mass by the formation of an ex-

terior coating of dense connective tissue; that the tendency of cavities is as much to contract by cicatricial tissue as to continue to erode the coverings of their blood channels; in other words, that by studying the details of an ever careful treatment, by anticipating events, as it were, even the advanced cases of this disease can be held in abeyance, and its course often completely checked. If this disease can be so controlled, as this great authority tells us—and he knows no peer—the importance of attention to those who are strongly *predisposed* and not yet affected increases in value, and the question arises, whether or not all cases of phthisis, by proper care, could be avoided.

It is necessary for us to analyze with care those conditions which, as a whole, exhibit to us that picture called predisposition. Jaccoud, in the work just referred to, gives it to us, and we may include his summary in the following:—

The first and most important study is hereditary influence; it can be either *direct* or *collateral*. This in itself is sufficient as an indication for treatment, and especially is it important when other children in the same generation have died with the taint. Heredity means the transmission of the tendency which may proceed from a grandparent or from that generation (stavism), or from the parent. The following has a direct bearing upon it: the age of the parents at the time of marriage, the two extremes of life affecting the offspring; the health of the parent at the time of marriage.

This latter is most important, and is apt to be lost sight of as time goes by, especially, if from change of occupation, or of habits, or of climate, the delicate one has improved after the taint has been transmitted. Should one or both parents be diseased at the time of the conception, the imprint will be left upon the offspring; alcoholism, syphilis, scrofula, diabetes mellitus, epilepsy, or phthisis itself must be inquired for. A *liability* from inheritance, or that acquired, which at the time may affect the parent or parents, and be then tided over by care or treatment, so that eventually death would come from some other cause, might be inherited by the child. Marriages of consanguinity come under this head, and they are to be especially taken note of when a family predisposition is intensified, or a combination of two takes place, as epilepsy and scrofula, or phthisis and alcoholism.

Constitutional debility, innate or acquired, is the next important matter for consideration. Physical work greater than the age of the individual would permit of; sedentary occupation;

close confinement of young children in overheated, badly ventilated houses (even nurseries); too much desk work; dark dwellings; insufficient food, exposure, neglected catarrh; then, again, women who have borne children too rapidly, nursed them too long; or persons given to venereal or other excesses—all such, and many more that could be mentioned, are predisposing causes of the development of tubercular disease.

Scrofula is an indication of the first order; if it is in activity at the time a child reaches the age when pulmonary affections develop, treatment would be most urgent. If the scrofulous condition has been cured before this age, it would be more favorable to the child, but the manner of cure must be taken into consideration, and also the degree. Very often glandular enlargements or tumors are left, which may take on caseous degeneration, and through them auto-infection, by means of the lymphatic vessels and veins, may take place. Jaccoud calls our attention to Ponfick's researches, in which the lining of the thoracic duct was found affected by a tuberculous eruption from the introduction of lymph from a case with general tuberculosis. He also quotes Tuckwell, Mazzotti, Duckworth and Gee, in connection with this subject of auto-infection from tuberculous glands.

Previous pleurisy is another predisposing cause; this, with adhesions, may remain a long time latent, but may form a focus for caseous degenerations. Professor J. Lewis Smith has shown us how frequently pleurisy (often undetected) exists in even young children. Measles, whooping cough, typhoid fever, and diphtheria, give rise to a simple broncho-pneumonia, which may become subacute or chronic, and then becomes alarming in cases when the predisposition exists, and its treatment must be timely and energetic.

We are told that hæmoptysis, though rarely, is at times a cause of pulmonary disease, and that it may be a primary one.

Tubercular disease may be transmitted by contagion.

Villemain and Chauvrau have shown that the injections of sputa of phthisical cases may, as well as inoculations, give rise to tubercular disease; and Klebs has shown that it can be transmitted by the milk of tuberculous cows, first giving rise to gastro-intestinal catarrh, then disease of the mesenteric glands, the liver and spleen, and finally to tuberculous lungs; but that vigorous constitutions will prevent this resulting in death, and cure will finally take place, by cicatrization of the nodules. Experiments were made by Tappeiner, in 1877, with sputum prepared in

emulsion and inhaled by feeble dogs for an hour, or an hour and a half daily. This was mixed with carmine, and the latter was found in numerous spots on the surface of both lungs. These were followed by conclusive proof.

Constitutional debility is the basis for the development of contracted tubercular disease; wives catch it from their husbands, it is said, more frequently than the latter from their wives, on account of the debility which attends gestation, etc. A well-known example of contagion was reported by Flint, in 1875. A workman and his wife and five children, four boys from three and a half to fourteen years and a girl of fifteen, came to live in a village in Denmark, taking a small room where there had already lived a man and wife with a grown son affected with phthisis. This was in the fall of 1872, and they remained in this air till the first of the year 1873; but by Christmas, 1872, all five children, none of whom were previously scrofulous or diseased, were taken with phthisis; the length of the disease being seven weeks; three months; three and one-half months; six, and seven months; and the girl, who lived but one day in the room, died in three and one-half months.

The following, reported by Reich in 1878, is equally conclusive evidence of contagion. At Neuenberg, a village of thirteen hundred inhabitants, two midwives had about an equal share of obstetrical practice. One became phthisical in the winter of 1874, and she died in 1876. Of the children at whose birth she presided from April 4th, 1875, to May 10th, 1876, ten died (from the 1st of July, 1875, to the 29th of September, 1876) of tubercular meningitis. None of these children had hereditary taints. In the practice of the other, no child died of this disease. It was found that the former was in the habit of practicing direct insufflation when the children seemed partially asphyxiated. The disease was not endemic at that place, for out of ninety-two deaths of children under one year, from 1866 to 1874, but two died of this disease; and in 1877, of ten deaths, but one died of this disease, and that child came of tubercular parentage.

Semmers experimented, in 1875, by injecting blood from a tuberculous cow, and out of nineteen eleven were positive. I quote these examples to show that disease of this kind can be acquired, but there must be a *receptivity*, as Jaccoud terms it, either through an inherited predisposition on the part of the individual exposed or one acquired. To day, it is acknowledged that tubercular disease can be communicated by inoculation, by inhalation of air more

or less charged with materials exhaled by patients, or possibly by materials given off by the skin and communicated by sleeping in the same bed with diseased cases. Some believe that it is specific from germs which are communicable; others that it can arise *de novo* as a simple product of tissue change, and can then be carried as a focus for communicating the disease. It can also be communicated by milk from tuberculous cows.

What are the characteristics of the soil which vivifies such seeds; in other words, what are the individual peculiarities which even the laity recognize as fertile for the development of tubercle?

A long body, a thin neck, with prominent, ribbon-like muscles, long hair, of luxurious growth, bright, animated, blue eyes, with long, dark lashes, beautiful teeth, the skin clear and transparent, showing the blue lines of the veins, bluish finger ends, with clubbed nails, a nervous, excitable temperament; these, when combined, form a striking picture of this tendency, and often when seen separately are easily recognized. Such cases catch cold easily, though they, as a rule, recover rapidly. They easily weaken or droop in overheated rooms, readily fatigue after excitement, and often complain of short breath after animated conversation, or upon any extra exertion. The tone of the voice easily alters. Any one of these signs well marked, or a combination of them in cases with inheritance, with anemia, with dyspepsia, menstrual disorders, or unaccountable sudden alterations in the voice, vague, flying (rheumatoid) chest pains, or a genuine attack of rheumatism, with the "pterygoid" thorax, and unaccountable emaciation, make up the portrait which forms the verdict of weak lungs. There is another variety which frequently deserves attention and requires great care in preventive treatment, that which is distinguished by what we term the scrofulous diathesis; skin which is opaque and "doughy," thick lips, large, gray eyes, sandy hair, and a tendency to glandular enlargements, especially those of the neck and the tonsils.

Let us go further back, and study the infant in its cradle. What are those indications that point in its case to the development of tubercular disease? Many of the above mentioned grosser signs are wanting in one so young, but we have others to take their place. In it the type of disease is usually acute; it is not invariably confined to one system of organs; instead of an insidious inflammatory disturbance within its lungs, of a

chronic form, its tubercular deposits occurring upon the cerebral membranes, or within the abdominal glands, will not tarry long to provoke marked symptoms. We will have the history of diathetic taints to guide—as hereditary predisposition, or that acquired by faulty nursing, or faulty bottle feeding, or vitiated atmosphere; or again, defective vitality, probably, from too early birth, or bad management at the outset of its career. How often we hear it said, "no wonder she died of consumption; she never was strong; she was an eight months' child;" or, again, "his weakness was due to the fact that his mother (poor thing), nursed the other child too long while she was carrying him." Indeed, the last child of a couple now well advanced in years, who have raised a good family, will frequently prove a fertile soil for the development of a disease that the others have baffled. Those babes conceived in the hovels of the poor, and nurtured in the dark and damp alleys of a large city or in the crowded quarters of a tenement house, are certainly prone to such an enemy, but scarcely more than those of wealth, who have fed from silver spoons, upon unnutritious diet—bottle fed, to keep their mothers fashionable, or nursed in overheated rooms, for fear of nature's pure, fresh, invigorating air. These are most frequent causes of early developed tubercular disease.

The infant with a large head, a patulous fontanelle, with beaded ribs or enlarged joints, with feeble digestive power, a tendency toward constipation at times, and then, without cause, an irritable diarrhoea, a large belly, is a fit subject for such disease. Another noticeable fact is that such infants occasionally show not only want of assimilation of food, witnessed by the poor nutrition, but at times a want of function in the intestinal glands and those of the stomach; and they frequently pass their milk scarcely altered, except to curdle. Infants of this class early show a great predisposition to catarrhs, to glandular swellings, and also to obstinate eruptions. Their sleep may be disturbed by frequent terrors, or they will toss the head, restlessly, from side to side, turn the eyes up, at times, and will, without cause, at times, break forth in profuse perspiration about the head, alternating with cold extremities.

It is most usually the bright and precocious babe, whose brain has progressed more rapidly than its body in size and development, that succumbs earliest to this dreaded affection. It is that part of the body which receives most blood, that part where tissue change is most

rapid, in which the disease takes its seat; consequently tubercular meningitis in the infant occupies the place that does chronic pulmonary phthisis in the adult. Then, again, we have the infant with a scrofulous diathesis—not as the one first described—with those characteristics that are termed “rickety;”—the one which is large and unwieldy, which is slow of development and somewhat sluggish in intellect, with nasal catarrh or squamous eruptions, with a tendency to croup and bronchitis, with glands which, upon the least provocation, will suppurate, and always remain large enough to be distinctly seen or felt; here a more chronic form of tubercle may be developed, occupying deeper tissue, forms in nodules, enlarges and softens the mesenteric glands, and forms a conglomerate mass, which excites the interest of pathologists, and raises questions as to its specific nature.

From this hasty glance at a subject so important, we see that the healthy possess in themselves powers of resistance to infection of this disease or to the development of the disease from tissue change. The treatment by *prevention* should then be directed to the establishment of this healthy state. Our cases cannot always be guarded against receiving infectious matters, but we can establish that *resistance* which is brought about by health, which in itself will counteract the *receptivity*, inherited or acquired.

HOSPITAL REPORTS.

UNIVERSITY OF PENNSYLVANIA.

CLINIC OF JOHN ASHHURST, JR., M.D.,
Professor of Clinical Surgery in the University of Pennsylvania.

Reported by CHARLES S. DOLLEY, for the MED. AND SURG. REPORTER.

Recurrent Calculus.

CASE 1.—Our first case to-day, gentlemen, is a rather complicated one; this boy, seven or eight years old, was some time since operated upon for stone in the bladder. The wound has either not healed, or having healed, has reopened and is discharging. Before introducing the sound I wish you to notice the great elongation of the prepuce, so characteristic in these cases, brought about by the habit of dragging at the part; the sharp pain in the glans penis being especially marked in children. Recurrent stone, while rare, does sometimes occur, and may be owing to the persistence of the causes which gave rise to the existence of the first stone, or again to the first stone having been broken in the attempt to remove it, one or more fragments remaining in the bladder. This may have been the case here—as seems probable from the character of the grating sound which I find at the perineal opening on the introduction of the sound. The operation under these cir-

cumstances will, of course, be a complicated one, from the previous wound making the perineum more dense, and thus, in the first place, increasing the difficulty of feeling the stone with the sound or staff; and in the second place requiring the wound to be made through cicatricial tissue; we may, besides, find cystitis as another complication during the after treatment. The operation which I shall perform, after having made a careful examination, and having satisfied myself as to the presence of a calculus, will be the ordinary *left lateral lithotomy*.

If we have a very small stone to remove, we may employ the median operation, or better still, we may remove it by crushing; the latter method being more favorable in adults than in children. If the stone, on the other hand, is very large, we may resort to bilateral lithotomy, in which we make a wound in both the right and left perineum, and gain room by incisions of the right and left side of the prostate. In case this does not give us sufficient room, we may either crush the stone, or as a last resort, perform either the *recto-vesical* or the *high operation*.

It is not often that we are compelled to resort to the latter, and I have removed in this amphitheatre a stone weighing more than three ounces by the ordinary *lateral operation*. I think it best always to secure the patient in the “lithotomy position,” by fastening together the hands and feet with bandages; this was the method employed before the discovery of ether, but I think it a safe precaution under any circumstances. It is of advantage to inject a few ounces of tepid water into the bladder, as it keeps the posterior surface of the bladder out of the way of the wound, and on making the incision the gush of water carries the stone against the neck of the bladder, rendering it less difficult to get at. The staff employed should be as large as can be introduced with safety, and should be held by the assistant firmly against the pubic arch. After the operation make sure that no portion of stone has been left, by introducing the finger and feeling carefully along the wound and in the neck of the bladder, and by washing out the organ with a stream of tepid water. Do not be in a hurry in a case of stone; take plenty of time. The after treatment is simple; keep the legs together, the parts dry and clean; an opium suppository if necessary; perfect rest, with a milk diet; and after the urine ceases to flow through the incision, treat as you would any other incised wound.

Amputation of Leg.

CASE 2.—Some of you will probably remember our next patient, who appeared before us last winter with a bad compound fracture of the leg. Amputation was advised at the time, but as he protested so strongly, an attempt was made to save the limb. The external wound healed almost entirely, but in the course of the summer ulceration of the cicatrix has occurred, accompanied by consecutive shortening, and he now comes to us to have the limb amputated, as he feels that it is a burden. This is an instructive case, in showing what nature can accomplish, and that a limb may be saved even when the sloughing is very great. By all the rules of surgery, it should

have been amputated; but it is not best to insist too strongly when the patient refuses, lest you receive blame as long as the patient lives, for an unnecessary amputation. Another point to be remembered in favor of an immediate amputation is, that an ulcer from an old injury is apt, in the course of years, to take on a malignant form, such as we often see on the lip and tongue, due to irritation; thus, what begins as a simple ulcer, becomes, in the course of time, an epithelioma, by the excessive product of epithelial cells on the surface of the ulcer boring their way into the tissue in peg like masses.

Always apply the pad of the tourniquet either directly over the artery, or directly opposite; in the first case it acts by pushing, in the latter by pulling; if it is applied in any other position, you will get a sliding pressure. It is important that you should remember to thoroughly shave the leg before amputation, in order to avoid much of the severe pain caused by the removal of the adhesive strips from the stumps.

Cystic Tumor.

CASE 3.—We have, in this case, an example of the difficulty of diagnosing between a fatty tumor and a cyst, especially if the latter be thick walled and deeply-seated. The diagnosis is much influenced by the position in which the growth is found; thus, in those parts of the body in which fat is most developed, we may expect to find fatty tumors. Cysts may occur in any region of the body, often originating from distention of ducts or sacs; they are very common in the scalp, which is the favorite seat of sebaceous cysts. Fatty tumors may, however, occur in the scalp, and I have known them to be mistaken for cysts. In the present case, the growth, which you see is as large as a female breast, being situated deep beneath the muscles of the side, and rather doughy than fluctuating, presents many points of resemblance to a mass of fat.

In the removal of non-malignant growths, it is best to avoid the removal of any skin, and a curved, or S-shaped incision should be made, in order to expose the growth well, without at the same time making a very large wound. In malignant growths adherent portions of skin should be sacrificed, since, if allowed to remain, they but encourage a return of the growth.

The most difficult part of the operation is the removal of the cyst walls, which are often, as in this case, very thick, and have to be carefully dissected out.

At times, cysts may cause absorption of neighboring bone tissue, from pressure; this is often the case with the congenital cysts of the head, where they cause thinning of the skull at the point of pressure, sometimes leading to the most serious results. The present growth, which seems to be one of long standing, has sent processes between the ribs, which processes we will not dissect out, for fear of perforating the thoracic cavity, but will wash the floor of the wound with a solution of chloride of zinc, which will cause the sloughing out of any portions of the cyst wall that may remain, and give us a healthy granulating surface.

The French have a method of diagnosing fatty tumors by means of the ether spray; the intense

cold produced by the application of this to the growth will, if it be a fatty tumor, cause its septa to contract, and thus increase its characteristic lobulated appearance.

COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK.

BY PROF. FRANCOIS DELAFIELD.

Parenchymatous Nephritis.

CASE 1.—This little girl, gentlemen, is ten years old. Her mother noticed two years ago that she was passing hardly any urine, and after this had lasted for a few days, the child had general dropsy. She had been well previous to the time she began to pass less water than normal, and when the dropsy became developed, she manifested no further symptoms, save that her face was lemon yellow in color. The dropsy continued for about four weeks, and the child apparently returned to health. Her mother found that the urine still contained albumen, however, although the child was otherwise apparently well. Her apparently good condition continued until about a year ago, and then the patient's urine was normal. Last spring, however, the dropsy returned, with albumen in the urine. The dropsy continued till about four weeks ago, when it disappeared; the child presents no sign of it now. Albumen is present in considerable quantity. The specific gravity of the urine has ranged from 1.010 to 1.015, and casts of all kind are found in it, also a few blood-globules.

At present the child does not look sick. Her color is good, her lips are red, and her whole appearance is very fair.

Of course you decide that she has Bright's disease; but that is not enough. We want to know what the exact lesion is, in order to know the treatment and the prognosis. She is suffering from parenchymatous nephritis, and we would call it acute parenchymatous nephritis, in spite of the length of time it has existed.

The mother tells us that the patient has suffered from two attacks. If this be true, the prognosis is tolerably good; the probability of the child's recovery is very fair. How soon she will recover we do not know. If we could see that the child passes the next winter in a warm climate, the prognosis would be much better. If she can go through next winter and spring without another attack during that time, her chances are good, but if she has another attack during the winter or spring, the prognosis will be more unfavorable.

The dropsy in this case being absent, furnishes no indication for treatment. Albumen is still present in the urine. The patient's blood is apparently in good condition; her color is good, and her lips are red. But in spite of this evidence she may be anemic. You will find it a good plan in these children, to listen to the first sound of the heart, and you will get a blood murmur in these children. The patient has such a murmur and her blood, then, is not in as good condition as it appears to be; she is really anemic. Hence, in this patient, we treat the blood and the disordered function of the kidneys.

In many of these cases we give iron for the

anæmia; but in this case I should be disposed to give small doses of the bichloride of mercury. That drug, given in small doses for a considerable length of time, seems to increase the number of the red globules of the blood. Give the bichloride to this patient in doses of one thirtieth of a grain, three times a day.

The child's skin should be kept in the best possible condition. She should be washed all over every night, so that the skin may be kept absolutely clean, and she should be clothed completely in flannel.

The issue of this case will depend very much upon whether she has an attack during the course of the winter and spring.

Chronic Meningitis.

CASE 2.—The patient suffered from sunstroke last July. He did not lose consciousness at the time. He lost the power of his legs and the power of speech. He has been confined to the house until recently, and during that period the loss of muscular power and the loss of power to speak continued. He has lost his memory, and his whole mental condition is bad. He speaks with difficulty now; and his legs show considerable muscular weakness. There is also some loss of sensation. The patient tells us that he was not well previous to the sunstroke; that he had a dull, drowsy feeling all the time, and that headache existed also, before last July.

This history is not the regular history of sunstroke. Sunstroke is common enough in New York, but we do not get such a history as this very often from it. The patients will suffer from impairment of memory and headache, and they will not feel well generally. But we do not get loss of power of speech, and of the voluntary muscles, as in this man. With the present history, I would not be willing to say the loss of speech and muscular power, are due to sunstroke.

The history which the patient gives is that of chronic meningitis. With that disease we get just such a history as this. The patient says that he has never had syphilis, a common enough cause of chronic meningitis. If he has had chronic meningitis, he is better now. The disease may improve further. Although the condition of his legs and of his speech may get better, it is probable that his mental faculties will be affected for some time.

Observe the character of the difficulty in his speech. The patient has been completely aphasic, he is partly so now. The aphasia is due, in this case, to impairment of the power of the muscles of articulation. This form of aphasia is not very uncommon with chronic meningitis. With apoplexy and cerebral embolism we are more apt to get that form of aphasia due to loss of the faculty of speech.

This patient must take iodide of potassium, and continue the drug for a long time. Give doses of from ten to fifteen grains three times a day. He should get out of doors as much as possible for fresh air and exercise.

Acute Diffuse Nephritis.

CASE 3.—This patient says that she was in apparently good health until last February, when she was confined. The confinement was perfectly normal. After it she was well enough

until March, when, after going to bed one night in good health, she awoke in the morning with a febrile movement, headache and vomiting. Her urine was high colored. She was sick in bed for a month. During the time there was no dropsy. At the end of the month her general constitutional symptoms had disappeared, but when she began to go about the house, her legs became œdematous, the œdema extending up to the thighs. The swelling lasted till July and then disappeared, save that now, after standing for a long time, there is a little swelling of the legs. She has occasional headaches, but no sickness at the stomach. She is anæmic. Her urine contains a considerable amount of albumen; its specific gravity is 1.008.

We want to know, for the sake of the prognosis and treatment, what form of Bright's disease this patient is suffering from. The disease commenced abruptly. In a certain number of cases of diffuse nephritis, the first symptoms come on abruptly; but we do not get the febrile movement so abruptly. The febrile movement comes on during the exacerbations of the disease, but we do not get it at the outset. Another obscure point is the abrupt commencement of the nephritis, as such. For this woman to go through a confinement, without showing the signs of nephritis would be very uncommon. If she did this, it is more likely that the case was one of acute diffuse nephritis at the beginning. The question now is, whether it was acute diffuse nephritis at the outset, and has now become chronic diffuse nephritis, or whether the acute diffuse nephritis has nearly run its course. If the latter be the case, the prognosis is favorable, but if she has chronic diffuse nephritis now, or has had it from the first, then the prognosis is very bad. The history of the case will not permit us to be certain as regards the decision of this point. The probability is that she has had acute diffuse nephritis.

The dropsy in this case also requires no attention. The condition of the blood and the disordered function of the kidney require treatment. The anæmia is more marked in this patient than it was in the little girl. Oxygen gas and iron, combined, will most promptly relieve the anæmia. We prescribe inhalations of oxygen gas, and some preparation of iron to be taken by the mouth. This is all that need now be done for this case.

WESTERN PENNSYLVANIA HOSPITAL, PITTSBURG, PA.

Reported for the MED. AND SURG. REPORTER, BY
JOHN J. BUCHANAN, M.D. (Resident).

Amputation of both Legs and Fracture of the Femur—Recovery.

Henry N., a brakeman on the Penna. R.R., aged twenty-one, was admitted to this house at 12.30 P.M., August 3d. Twenty minutes previous to admission he had been struck by a moving car and had fallen between the rails, the car passing over him and the wheels comminuting the bones of his left leg and right ankle and pulpifying the surrounding soft parts. Besides these injuries, he had sustained a fracture of the left

thigh-bone in its upper third, and wounds of the face and scalp.

Twenty-five minutes after admission the patient was anesthetized with a mixture of equal parts of ether, chloroform and alcohol. James McCann, M.D. and W. R. Hamilton, M.D., Surgeons to the Penna. R.R., then amputated, the former the right and the latter the left leg. The Esmarch bandage was used in both instances. Anterior skin and posterior musculo-tegumentary flaps were formed and section of the bones of the left leg made in the middle third and of the right at the junction of the middle and lower thirds. The arteries were secured by torsion and the oozing checked by the application of towels wrung out of water as hot as could be borne by the hand. The edges of the flaps were accurately apposed by silver wire sutures and adhesive strips. No drainage tubes were used. The dressing was resin cerate and absorbent cotton. The patient was put to bed and the fractured thigh steadied by lateral sand bags, no extension being at first attempted.

During the first three days the pulse was full and regular, and remained between 108 and 114 per minute. The temperature ranged between 99.5° and 101.6°. Liquid diet was used exclusively, for which the patient's appetite was fair. One-sixth grain morphine sulphas was given hypodermically each evening, which secured sound sleep throughout the night. But little pain was experienced. At the end of the third day the dressings were for the first time removed, and both stumps were found in excellent condition.

There was considerable suppuration, but no sloughing. Gentle pressure was used to promote the escape of pus, but neither then, nor at any subsequent dressing was any water applied. The fractured thigh was supported by a leather splint and a firm roller.

From this time the patient's stumps steadily healed. They were dressed daily with the resin cerate, and union by primary adhesion was gained in a large part of the extent of the suture of both limbs. The rapidity of the pulse gradually lessened, and the temperature declined till it became normal on the seventh day. On the sixth day the diet was increased by the addition of toast and steak. The patient's appetite continued good, and his spirits and confidence in his recovery never flagged. On the twenty-sixth day the injured thigh was incased in a plaster-of-Paris dressing. On the twenty-eighth day both stumps were entirely healed. At the end of the seventh week the dressing was removed from the thigh, and the fracture of the former found firmly united, with but little shortening.

The points thought worthy of remark in this case are the slight amount of constitutional disturbance following such grave injuries, and the steady and rapid healing of both stumps.

The promptness with which the operations were done (three-quarters of an hour after the injury), the excellent constitution of the patient, and the fact that the dressings were untouched for three days, are considered the important factors in the favorable result.

EDITORIAL DÉPARTEMENT.

PERISCOPE.

The Prevention of Ophthalmia Neonatorum.

Dr. K. Grossman has, in the *British Medical Journal*, the following valuable suggestions:—

The idea of preventing this disease by prophylactic measures has been crowned, as far as known till now, by a splendid success. In order to seize the evil at its root, Crédé, in Leipzig, carefully treated the least trace of vaginal catarrh of the pregnant woman, so that at the time of the confinement the fluor had quite vanished. He had some success: but in a comparatively great percentage the outbreak of ophthalmia could not be prevented. The local treatment of the maternal passages, however valuable, did not prove sufficient; and this result led to the experiment of disinfecting the eyes of all new-born children, without exception, as soon after birth as possible. In some cases, where a fluor albus existed, the disinfection of the eyes of the child was performed immediately after the birth of the head, before the body was born completely; and from the statistics obtained thus, you will judge yourselves with what success.

The method, which varies a little in the composition and strength of the lotions applied, is

the following: Every child, without exception, whether of a healthy mother or of a mother suffering from leucorrhœa, must be subject to it as soon after birth as possible. The closed eyelids are washed and cleaned outside with a lotion of two per cent. carbolic acid. This having been done carefully, the eyelids have to be turned round, so that they form a complete ectropion, with the conjunctiva tarsi entirely exposed. Then, after carefully removing every trace of flaky secretion which may be found there, the conjunctiva has to be inundated with the two per cent. carbolic lotion for one to two minutes, care being taken that the lotion reaches every part of the conjunctival sac. This manipulation ought to be repeated three times daily during the first two days of life. Should the mother have had a very strong catarrh of the vagina, it will be valuable to pad the child's eyes, between the three times of cleaning, with a cotton-wool pad dipped in the same lotion, and renewed every half-hour during daytime.

You will object that this treatment, applied to every case of birth, is a great trouble and inconvenience for the practitioner, who is already hampered enough by his other duties; but let me now show to you the statistics obtained by this method.

In Leipzig, at the Obstetric Clinique, the per-

centage of ophthalmia came down from 13.6 per cent. to 7.6 per cent. at first; and in the following half-year there was, out of two hundred births, only one child subject to ophthalmia; and in this one case the application of the lotions had, by neglect, been forgotten. In Halle, the percentage gradually came down from 12.5 per cent. to 6 per cent. and then to 3.6 per cent. It is obvious that in the beginning, when the nurses were not yet so well instructed, the percentage was yet comparatively great, and then decreased continually. My own statistics are yet small; the results of the experience gathered by me in two of the Liverpool workhouses are not yet numerous enough to be of a great weight, though, during the last four months, while the method was carried out, not a single case of ophthalmia neonatorum occurred. Those cases which I have treated privately, under my own personal care, are only five, but all of them were successful. In each of these cases the mothers brought to me a child which had lost the sight by ophthalmia neonatorum, and consulted me about this child's eyes. All these mothers being pregnant and suffering from fluor albus, I advised them to have the necessary measures taken, that the expected child might be saved from the sad fate of the previous one. They were only too glad to have all necessary precautions taken, and the result was a complete success.

The Action of Resorcin.

Dr. Wm. Murrell says on this subject, in the *Medical Times and Gazette*:—

Commercial resorcin is red in color, and has a strong smell resembling carbolic acid. Pure resorcin, which alone should be used for medicinal purposes, is met with in beautiful white feathery crystals, having very little odor, but a sweet, pungent taste. It is freely soluble in alcohol, ether, glycerine, and vaseline, but is insoluble in chloroform and bisulphide of carbon. It has a neutral reaction, and burns with a bright flame. Its solutions give with perchloride of iron a deep violet color, and with fuming sulphuric acid a yellowish orange tint. It forms a white precipitate in albuminous fluids, the precipitate being probably an albuminate of resorcin.

The observations of Andeer and Brieger, and more especially the experiments of Dujardin-Beaumez and Callais, have shown that it arrests almost all forms of fermentation, and that it is a powerful antiseptic. For surgical purposes it presents many advantages over carbolic acid; it is probably less poisonous, less irritating; is almost odorless, and is very soluble in water.

In rabbits, dogs, and other animals it exerts a powerful action on the nervous centres, producing epileptiform convulsions. The respiratory movements become superficial and very rapid, and usually the heart continues beating for some time after breathing has ceased. Dujardin-Beaumez and Callais frequently noticed a considerable elevation of temperature in rabbits which had received a toxic dose.

Its action on man has as yet been but little studied. The ordinary dose is said to be from one-half to three grams, but more may be given.

Lichtheim found that after the administration of a full dose there occurred giddiness and buzzing in the ears, the face became flushed, the eyes brighter than before, the breathing quickened, the pulse more frequent by several beats and generally somewhat irregular. In from ten to fifteen minutes after the dose had been taken the skin became moist, and a few moments later the whole body would be bathed in perspiration. He found that it reduced the temperature in fever-free patients by five or six degrees Fahr., and from this he was induced to employ it as an antipyretic. When given in large doses it often induces symptoms of intoxication, with illusions and moaning respiration, but, and he especially refers to the fact, no symptoms of collapse were ever noticed, either during or after its administration. Andeer, on one occasion, took ten grams of resorcin in two hundred and fifty grams of water. In fifteen minutes he lost consciousness, and was seized with epileptiform convulsions. He recovered in five hours.

Remarks on Puerperal Eclampsia.

At the close of a report of several cases of this accident, Dr. Sturton remarks upon it, in the *Glasgow Medical Journal*:—

According to Trousseau, the only disease eclampsia might be confounded with is ordinary epilepsy. There is nothing, he says, in the form of the convulsion to distinguish the one from the other, but the frequency of repetition and continuity of the attacks are the rule in eclampsia and the exception in epilepsy, and that it supervenes on a pathological condition which frequently it is possible to foresee.

It is beyond the scope of this paper to touch on the question of the causation of albuminuria in the pregnant woman; but, like all other obscure subjects, the supposed causes are so numerous as to be sufficient proof of the uncertainty that prevails on it.

It is almost impossible to reconcile the differences in comparing the observations of several authorities as to the relative frequency of the presence of albuminuria in women who are *enceinte*, for one would suppose that, being a matter of fact which could be easily verified, there could not exist such discrepancies of statement. The French observers—MM. Blot, Petit, Hypolite—say it is present in about twenty per cent. of cases of pregnancy, whereas Galabin, who made forty-three observations, saw it once only, and makes the apposite remark that there are very few observations on the subject in literature. Dr. Hicks, referring to the subject of albuminuria in pregnancy says: "I have not been able to find more than fifty cases on record, and these are given by Dr. Lever (Guy's Reports): in none was albumen present. To these I can add another fifty cases investigated by the gentlemen attending Guy's Hospital Maternity; in only one was albumen present, and in this there was a clear history of old disease of the kidney."

One of the chief causes of eclampsia is albuminuria; and Galabin (*British Medical Journal*, Oct. 30th, 1880), who saw thirty-seven cases, examined the urine in twenty two, and

found it present in all except one, though three had albumen only after the convulsions commenced.

Cholemia is also recognized as a cause, and it may be questioned whether case number one was not produced by bile (for the urine was not examined, through an accident); but on considering the whole of the general symptoms, I believe it was an acute case of Bright's disease, with dark, bloody urine. Number three case, however, in which the urine was all but solid, had not a single bad symptom, so that all cases of albumen are not followed by convulsions, which compels one to the conclusion there must be some other factor at work, or some difference of constitutional temperament. She is the perfect embodiment of stolidity.

Braun says, in one-fourth of the cases the albuminuria, or rather the uræmia, without eclampsia, is sufficient to induce premature labor; and this seems to bear out my own observations, for all three cases were premature, though number one may have been due to accidental causes.

Aural Affections in Exanthematic Diseases

In the *Archiv für Ohrenheilkunde*, vol. xvi, Dr. Gottstein has a paper on this subject. He refers to the rarity of observations, by competent observers, of the earlier stages of the ear diseases which occur during the exanthemata. From the statistics of Burckhardt-Merian it is seen that of all the cases of ear disease which were referred to the exanthemata, but 16 to 18 per cent. were seen within the first six months of their development; and Gottstein's own statistics are not any more favorable for the observation of the acute stages of disease, and for the determination of the question of how the great destruction which is so often seen in such cases occurs. Wreden, of St. Petersburg, from his connection with the large children's hospital of that city, had most unusual opportunities for early observations. He has reported diphtheritic inflammation of the middle ear as very common in scarlet fever, but his observations have not been confirmed by others, as Gottstein thinks, owing to the ear disease being seen only in its later stages. According to Wreden, the diphtheritic exudation continues only for fourteen days, and is succeeded by supuration, the stage in which the disease usually comes under treatment. As contributions to this subject, Gottstein narrates three cases—one of croupous inflammation of the velum, pharynx, nose, and both middle ears, in the second week of scarlet fever; one of diphtheria of the throat, with diphtheritic inflammation of the left tympanum, in the second week of measles; and one of acute desquamative inflammation of both tympanic membranes, with perforating tympanic inflammation, in the course of measles. In the first case, two days after the appearance of diphtheritic membranes in the pharynx and nose, great deafness was noticed, and examination showed diphtheritic membranes over both drum-heads, which were already perforated, and the same exudation covered the tympanic mucous membrane. From the history, the presence of membrane first in the nose and later within the

tympanum, Gottstein concludes that the exudative process extended up through the Eustachian tube to the tympanum and produced the destruction from within outward. In the second case, soon after the appearance of diphtheritic membranes on the uvula, palate, and tonsils, great deafness, without pain or discharge, was noticed in the left ear, and the deeper meatus was found to be covered by similar membrane. After removal of this, the membrana tympani was found perforated and the tympanic cavity in a state of supuration, but without any membranous deposit, and Gottstein feels uncertain whether the exudation of the ear was an extension from the pharynx or was an independent deposit. In regard to the treatment of diphtheria, Gottstein has never seen the diphtheritic process shortened by cauterization, and considers that therapeutic efforts should be directed to removal of the exudation and to disinfection of the mucous membrane. He advises prolonged baths in aqua calcis, and powdering the diseased surfaces, after removal of the membranes, with salicylic acid.

REVIEWS AND BOOK NOTICES.

BOOK NOTICES.

A Manual of Ophthalmic Practice. By Henry S. Schell, M.D., Surgeon to Wills Eye Hospital, etc. With 53 illustrations. Philadelphia: D. G. Brinton, 115 South Seventh street, 1881. Cloth, 8vo, pp. 263. Price \$2.00.

This book, which well merits its title, is written with great brevity and clearness. It is well adapted to the wants of the student who wishes to become well grounded in the outlines of ophthalmology, and desires to leave the minutiae to be filled in at his leisure; and it will be found equally valuable to the general practitioner who can spare but little time in the intervals of his visits to make himself acquainted with the knowledge necessary for the treatment of his eye cases.

The first chapter contains a short account of the anatomy and physiology of the eye, illustrated by ten figures. Chapter II is occupied with affections of the eyelids and with the treatment appropriate to them. Chalazion is treated by the author by slitting up the sac from the conjunctival surface of the lid and scooping out both the gelatinous contents and the sac wall, by means of a sharp spoon made for the purpose. For the relief of the distressing trichiasis which often remains after the cure of trachoma, there is recommended a simple operation, which consists in the excision from the lid of a crescentic slip of tissue which diminishes from a quarter or an eighth of an inch in width on the

skin to a simple incision of the conjunctiva, the wound being afterward closed by deep sutures. Chapter III presents an account of the disorders of the lachrymal apparatus. The directions for treatment are practical and concise. Chapter IV is occupied with diseases of the conjunctiva, for the treatment of which mild applications mostly are recommended; such as collyria of borax, four to ten grains to the fluid ounce of water in catarrhal affections, and half grain solutions of nitrate of silver in purulent or gonorrhoeal conjunctivitis. This mild plan of treatment is entirely in accordance with our own experience. A troublesome variety of hay fever is described under the title of autumnal conjunctivitis.

The principle, construction, and mode of use of the ophthalmoscope are very clearly set forth in chapter V, and explained by illustrative diagrams.

Chapter VI is concerned with the subject of refraction and accommodation, all of which, with their anomalies of H. M. and A. S., are explained in an exceedingly simple and lucid manner.

Chapter VII treats of the ocular muscles, and their disorders, explains the causes of strabismus dependent of ametropia, and the difference in strength of the muscles in certain individuals, and gives directions for the proper treatment by glasses and operations; and explains the asthenopia due to reflex irritation.

Chapter VIII deals with the diseases and treatment of the cornea and sclerotic, gives the results of iodoform internally for phlyctenular keratitis; and describes a simple form of bandage for keeping the lids closed, and a useful instrument for removing foreign bodies from the cornea.

Chapter IX gives an account of the diseases of the iris, of great value to the general practitioner, since it points out the means of diagnosis and enjoins the necessity of the use of mydriatics and other therapeutic measures. In syphilitic iritis, the author states that he has seen it occur even when the patient was already under the influence of mercury for other symptoms.

In chapter X the subject of cataract is well treated, and the last and most valuable ideas as to the operations needed for its removal will be found clearly described.

Chapter XI is devoted to the diseases of the vitreous humor.

Chapter XII gives an interesting summary of what is known, by the ophthalmoscope, of the constitutional diseases of the retina and optic nerve, and describes the lesions found in atheroma, Bright's disease, epilepsy, straining, purpura, leukæmia, essential anæmia, optic

neuritis, and cardiac hypertrophy; explains the changes in the eye ground which occur in tumors or diseases of the brain and spinal cord, and indicates how essential the use of the mirror must always be in the diagnosis of many diseases of the nervous centres.

In chapter XIII, we find the diseases of the eyeball, with a clear account of glaucoma, its causes, its diagnosis, and proper treatment; together with instructions for the operation of iridectomy and sclerotomy.

Chapter XIV concludes with an account of the inflammations and morbid growths of the orbit, and defines and advises the therapeutic and surgical means required for their proper treatment.

Dr. Schell has given a valuable addition to the literature of diseases of the eye in this compact manual, in which will be found clearly expressed the last and most trustworthy ideas of the living masters of the subject.

The book is a credit to the publisher, and is made attractive by its excellent paper, good illustrations and clear type. A sheet of test letters is added, which can be pasted on a card for office use.

W. T.

Twenty-Sixth Annual Report Upon the Births, Marriages, and Deaths in the City of Providence, for the year 1880. By Edwin M. Snow, M.D., Superintendent of Health and City Registrar. pp. 95.

No city in America has a more perfect system of registration than Providence. The volume before us contains not only everything relating to births, marriages, and deaths, for the year 1880, but also a résumé of the same for the past twenty-six years. While the birth-rate varies considerably from year to year, there has during that period been a gradual decrease. The births in 1880 numbered 2627, or one in 39.92 of population, while the average rate for the past twenty-six years was one in 35.70. The greatest number of births in proportion to the population was in 1858 (one in 28.68), the fewest in 1879 (one in 41.7). The greatest number of marriages was in 1867 (one in 33.23), the smallest in 1867 (one in 53.48), since when they have gradually increased, until in 1881 there was one marriage to every 42.49 of population, a little below the average for the twenty-six years, this being one in 41.20. In the death rate there has also been a great variation, from one in 59.19 in 1867 (a remarkably healthy as well as matrimonial year), to one in 42.01 in 1864. The mortality in 1880 approached the average, one in 50.41; the average for twenty-six years being one in 50.84.

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ADVERTISING AND ADVERTISERS IN MEDICAL JOURNALS.

There is a sensitiveness in the profession in reference to advertisers, which in some respects is well grounded, and in others is carried to excess. Physicians require supplies of various kinds, and they should be made acquainted with what improvements and novelties come out in the line of their wants. There is no way in which this can be done so well as by reading advertisements which set forth the advantages of these novelties. To be sure, the drawbacks to their use, and their imperfections, are not mentioned, but an advertisement must not be regarded as a scientific contribution.

Very much of value in therapeutics, and in surgical treatment, has been introduced by those working only for their own personal interest. Such is the formation of human relations, that the intelligent pursuit of individual interests increases the advantage of the community. It is quite as much so in medical as in other matters, and the effort made by some writers to make it appear

otherwise arises from the contemplation of impracticable ideas.

We are, therefore, of the decided opinion that it is desirable for persons having new knowledge, to impart it through advertisements, as well as in other manners. The position taken by a few members of the profession, that the ideal medical journal should not admit any advertisements whatever, appears to us erroneous. It is depriving the readers of a means of becoming acquainted with many interesting facts, and of keeping themselves abreast of much that is transpiring in the professional world. It is also a presumptuous though tacit assertion that the advertisers are, as a rule, deliberate deceivers, and on the other hand, that the readers are so obtuse or verdant that they are ready to swallow every statement they see in print. The ground for excluding advertisements from medical periodicals appears to us untenable, and the act of doing so would be a lessening of the value of the journal to its subscribers.

That this opinion is widely entertained is obvious from the fact that there are very few medical periodicals which exclude advertisements, either in this or any other country. Of course, one reason that may be suggested for this is, that it is more profitable to admit them. But it would not be more profitable did there exist any strong and well grounded opinion among the profession that a medical journal ought to be conducted without admitting them. Were this so, did such a feeling have sway, editors would find it more to their interest to cater to it than to seek for advertisers. Such, however, is evidently not the case.

There is a proper limit to advertisements which every periodical should observe, though few do. The pages intended for the perusal of the subscriber, those professedly devoted to returning him the value of his subscription, should not be invaded by advertisements in any form or under any disguise. It is a prevalent habit with many journals to admit so-called "editorial notices" of their advertisers' wares. These notices have the air of being pieces of candid testimony to the value of the article, but are generally put in dis-

tinctly for pay, and often not even written by the management of the journal. We often see these notices in American medical journals, and we consider them nothing less than attempts at fraudulent imposition on the reader. Without meaning to assume any remarkable virtue, we wish to say here that no such notice ever appears in the *MEDICAL AND SURGICAL REPORTER*. Not a line of the reading columns of this journal is ever made part of an advertising contract. Any opinion offered as to the value of an advertised article is the result of personal experience and actual use, either by the editor himself or some of his medical friends. This course is strictly adhered to, and when any such opinion is advanced, readers may be sure that it has positive ground, and is not a paid notice.

This course of proceeding, while it suits honest advertisers, does not attract those who hesitate about the crucial tests of experiment for their wares. We can recall three large advertisements which we have lost during the past six months by resolutely refusing to put in editorial notices other than fair statements from our own use of articles. Yet all three of these advertisements are now running in several prominent medical journals whose editors must have accepted the humiliating proposal of putting in as their own, various statements of whose truth they had no knowledge. When advertising is conducted in this way, it becomes disgraceful and debasing to editors, and deceptive to readers.

Of another class of journals, those published ostensibly as scientific periodicals, but really as advertising organs for manufacturers, we have in the United States an ample supply. They are not quite what they pretend to be, and necessarily the statements in their pages are colored by the interests which give them existence. For this reason they must constantly be quoted with reserve; and we should rather see this class disappear than prosper, until they are ready to show their true colors. They pretend to be impartial distributors of scientific news, and to be edited in the interest of the profession, when they are not.

NOTES AND COMMENTS.

To Our Subscribers.

Our subscribers will greatly oblige us by a prompt remittance of their subscriptions for the coming year. The journals we publish are "payable in advance," and although we do not at once stop them when a subscription expires, we cannot continue them long afterwards.

In order, therefore, to prevent any misunderstanding, and to avoid the unpleasant necessity of sending "duns," we earnestly request that all subscribers will forward us, by or before the middle of January, the amount for 1882.

We can promise them, in return, that the *REPORTER* will be in every respect equal to any other medical journal published in the United States.

As an inducement for our old friends to aid us, we offer:—

1. Any old subscriber who remits us ten dollars, five for his own renewal, and five for a new subscriber, will receive a credit of \$2.50 in purchasing any of our publications.

2. Any old subscriber who remits fifteen dollars, five for his own renewal, and ten for two new subscribers, will receive credit of \$5.00 on any of our publications.

We hope that all will renew, and that all will aid us by commending the *REPORTER* to their friends.

Therapeutic Notes.

FOR CHORDEE.

R. Amyl nitrite, gtt. iij-v.

Said, by a writer in the *Medical Record*, to be a very effectual remedy in chordee and painful priapism.

FOR CORYZA.

A writer in the *Union Méd.*, recommends the following, at the commencement of a cold:—

R. Acid. carbol. cryst.,	5 parts
Alcoholis,	15 "
Liq. ammon.,	5 "
Aquæ destill.,	10 "

Let a few drops fall on blotting paper, and inhale at a distance, through the nose and mouth.

APHRODISIACS.

According to Dr. Bartholow, the following are distinctly aphrodisiac combinations in functional generative debility:—

R. Ergot. extract. aquos.,	℥j
Sanguinaris pulv.,	gr. ij. M.

For twenty pills. One three times a day.

Or,

R. Tinct. sanguinar.,	℥ij
Stillingie ext., fluid.,	℥v. M.

Fifteen to twenty drops in water, thrice daily.

BENZOLE VAPOR IN WHOOPING COUGH.

A writer in the *Lancet* recommends, in whooping cough, benzole vapor, as prepared by a Lister spray apparatus or similar vaporizer. He has tried it with gratifying success.

Ecthyma in Smallpox.

M. Ducastral signalizes the appearance of ecthyma in some of his patients at the St. Antoine Hospital. The eruption first appears on the chest during the evolution of the variolous eruption, or after its dessication. The evolution of the pustules is rapid, lasting about ten days. The affection is accompanied with grave general symptoms, which sometimes cause death.

It would seem contagious, as a house-surgeon and nurse contracted the pustules while exposed to the contact of the patients. In the pustules M. Ducastral found a considerable number of spores, but nothing in the blood.

Treatment of Compound Ganglion.

At a recent meeting of the Société de Chirurgie, M. Notta mentioned a case where one of these tumors occupied the palm of the hand, extending above the wrist. He made three incisions, from which a large number of small granular masses (grains hordéiformes) escaped. Rubber tubing was inserted into the palmar wound and brought out through the incision in the forearm; this was removed next day; the progress of the case was slow and ultimate cure obtained about four months later.

M. Verneuil remarked, in the discussion which followed, that he was formerly timorous of operating in such cases, but that at present, with antiseptic precautions, he had obtained permanent cure after free incisions, in two cases, at about the twentieth day.

MM. Desprès and Trelat, were of opinion that complete cure was obtained in these cases only after suppuration; that union by first intention was to be condemned, for the cystic cavity should be filled up by slow cicatrization.

M. Nicaise remarked that in M. Notta's case, as in his own, there was a great number of riziform bodies and little liquid; he observed that the tendons were atrophied, and some even dissociated. Perhaps the intense pain remarked in M. Notta's case, was due to the injection of a twenty per cent. solution of carbolic acid.

M. Lucas Champonnière agreed that the pains were due to the injection of the carbolized solution, as such is the case when it comes in contact with a large exposed surface.

M. Notta replied that he had noticed fringe-like processes on the tendons in his case, but he considered the pain as due to the tube inserted, as it disappeared when this was withdrawn.

The Value of Meat Extract.

Dr. Lownds has a good deal to say on this subject, in a late number of the *Edinburgh Medical Journal*, especially with reference to Liebig's extract. He observes:—

This preparation of Liebig's is not only very useful in Asiatic cholera, but in all diseases where there is a deficiency of assimilation. I have used it successfully in septic poisoning after operation, in pyemia, in the worst cases of diphtheria, in typhoid fever, etc. I need not mention particulars, but may add that in a severe case of typhoid accompanied with blood in the stools, which medicines failed to check, the number of stools was at once reduced from four to five daily, to one every two or three days for the next week. The blood ceased at once. The rationale of this result, I attribute (whether rightly or not), to the almost absolute rest which it gave to the stomach and intestines, as no digestion was required. In this case it was given mixed with a small quantity of claret, in order that the wine might disguise its color from the lady patient. It may be given to the youngest infant. It apparently saved the life of a child, under three weeks old, when nothing else could be retained on the stomach. The irritative diarrhoea in this case was set up by giving the milk of an Alderney cow, too little diluted with water. Diarrhoea was followed by urgent vomiting and a state bordering on collapse. Then a considerable number of large abscesses appeared over all the body, scalp, and upper extremities. After the use of this food for three days the infant was able to retain ordinary chicken soup, and it gradually recovered.

On the Value and Safety of Administering Large Doses of Iodide of Potassium in the Late Lesions of Syphilis.

The *Medical Record* November 26th, 1881, contains a communication by Dr. M. H. Henry, in which he gives the history of a very interesting case of dementia and hemiplegia due to syphilis, in which small doses of iodide of potassium had failed to effect little, if any, improvement. Beginning with thirty grain doses three times daily, and gradually increasing both the quantity of each dose and their frequency of administration, until three hundred grains per day was reached, there began to be a marked daily change for the better. In this case, as

the doses were increased the improvements were most marked. The patient took three hundred grains daily for more than eight weeks, and with the disappearance of the syphilitic symptoms, he gained steadily in his general health and in flesh.

He was discharged, cured, nearly ten years ago, and has enjoyed good health ever since. He is stout and hearty, and is in full possession of all his faculties, and has been for many years attending to his business. He bears no evidence of any syphilis, and certainly none of any disease of the kidney; nor was there any albuminuria during the time he was under treatment. The doctor adds, that he frequently meets patients who were under his care as far back as 1864, and who, in the course of treatment, have taken very large doses of the iodide. They are invariably doing well, and bear no evidence of disease of the kidney or any lesion of syphilis.

Chlorhydric Acid in Chlorosis.

Dr. Zander, in the *Centralblatt für die Med. Wissenschaften*, contests the exactitude of the widely spread opinion that chlorosis is due primarily to an alimentation containing too small a proportion of iron. The malady is induced by default in the absorption of iron introduced with the food, because the gastric juices do not contain a sufficient proportion of chlorhydric acid. The result is that the albuminoid principles are incompletely digested, and nutrition languishes.

With this view of the question, the author has had recourse, in the treatment of chlorosis, to the following solution:—

R. Acid. chlorhydric,	2 to 4 grams
Aque destill.,	200 grams. M.

One or two tablespoonfuls of this solution may be taken after meals, and in obstinate cases pepsin may be added.

This treatment has, in the experience of Dr. Zander, given good results.

State of the Bones in Paralyzed Limbs.

Much attention has been devoted during late years toward the changes consecutive to old cerebral lesions. As is well known, since the researches of Charcot and Brissaud (1879), muscular atrophy is much more common than was formerly supposed, in the paralyzed limbs of hemiplegic patients; but up to the present the bone lesions have received little attention. M. Debove, in a recent communication to the Soc.

Médicale des Hôpitaux, observed that he was led to make researches on this subject, through noticing that fractures in hemiplegic patients always took place in the paralyzed limb. He found on examination that these bones were lighter than those of the other limb: on transverse section the medullary canal is found much enlarged, and the compact tissue less thick. The haversian canaliculi are larger, and contain more fatty matter. There is a vertical condition of osteoporosis, which explains the facility of fracture of these bones. These fractures are rapidly consolidated and there is generally a voluminous callus.

SPECIAL REPORTS.

No. XX.—OPHTHALMOLOGY.

BY C. S. TURNBULL, M.D.

(Continued from Vol. XLV, page 611.)

That hereditation, as well as consanguinity, plays an important part in accounting for many abnormally shaped eyes, we do not deny, but we are likewise confident that the imperfections in our school buildings, as well as the methods of the present educational system, are mostly to blame for the large percentage of what cannot be considered emmetropic (standard) eyes, that we are forced to notice, not only in the present, but also in the rising generation.

In concluding his valuable report concerning "Weak Eyes in the Public Schools of Philadelphia,"* Dr. S. D. Risley makes a most pertinent remark, which, in our opinion, might be printed in flaming type, to be held before the eyes of every parent in the land, viz. "Our children are placed at school at a too tender age."

To those interested, we would recommend a careful perusal of this Report, which, for want of space, we can only refer to in passing. It has been abridged as printed, and although occupying many pages, cannot be quoted in parts. It is intended more for ophthalmologists and especially educated physicians, but no one can read it without being impressed by many points of marked practical value to the general practitioner. The questions involved are innumerable and intensely practical, and a volume might be written upon the subject.

In conclusion, Dr. RISLEY says:—

"That the probability of harm resulting from the school life diminishes with every added year of age, in all states of refraction.

* The Report of the Committee on Examination of the Eyes of the Children of the Public Schools of Philadelphia, by S. D. Risley, M.D., Chairman. *Philadelphia Medical Times*, July 30th, 1881.

"Therefore, that our children are placed at school at a too tender age. (Italics our own.)"

"Sixth. That in view of the facts herein set forth, the great importance of proper hygienic surroundings and a wisely chosen and arranged curriculum of study is more than ever manifest.

"In arranging the course of study, the principle to be kept in mind is the avoidance of protracted use of the eyes at a near point—*e. g.*, in reading, writing or drawing."

Why not at a far point? Because the accommodation is then supposed to be relaxed. So it would be, if the far point varied. It does not vary in the majority of class-rooms where the black-board, now so universally used, is at a fixed distance for every scholar. Then, too, there is generally a strong light shining into the scholar's eyes, and this contracts the pupil; the iris, the lenticular system and the external muscular apparatus are in turn irritated, and direct or reflex spasm of accommodation is again induced.

The system of black-board education we would, from experience, condemn; so also the plan of allowing the children to study or read from books lying upon a desk or table; likewise the admission of light opposite, or at right angles to the face of the student; and last, but not least, glass partitions with swinging or sliding sashes, as now so generally used to separate class-rooms.

We have condemned black-boards as used in our public and other schools, and in this connection we can recall many interesting conversations we have had with teachers in our public schools, who, with us, have noticed the failure, one by one, of the distant and subsequent near vision of their scholars.

Black-boards are of varying shades, from a light gray to a jet black, either dull, or it may be, glistening. Some of these take the chalk, others do not, hence the tracings vary. Most teachers write delicately, a few coarsely, while the majority of children, as they are in turn called to the board, put the chalk on lightly; the children at their seats, meanwhile, must, usually under the most trying circumstances, decipher what is written.

We must also study the source of light and its varying reflexes. Often enough to make it the rule, the black-board is between two windows or close by one or more, the light from which shines directly into the eyes of the pupil; or, on the other hand, is reflected from the polished surface of the black-board; in both cases causing contraction of the would-be dilated pupil (the act of looking at a distant object having meanwhile relaxed the accommodation), and induced more or less spasm of accommodation, blurring of distant images,

congestion of the eyes (conjunctivitis, retinitis, etc.), to say nothing of general fatigue, headache, etc.

Half, or it may be all, the time, this strain is kept up, the eyes strive to make out distant objects, and in so doing the accommodation is relaxed and mis directed light irritates the retina and causes at the same time contraction of the pupil: thus a constant effort is called for on the part of the human optical apparatus, which, like all things human, must give out with fatigue.

If no window serves the purpose of throwing light directly into a child's eyes, or indirectly reflecting it in the same direction, the fashionable but detestable—for more reasons than one—glass partitions, with sliding, or worse, swinging sashes, reflect many lights and colored images into the irritable eyes of the coming generation.

Children in the country school houses, as they stand in classes, or sit upon benches without desks before them, are rarely seen to acquire errors of refraction. They are caused partly by the comforts of civilization, economy of space and neglect of hygienic rules. One of the best systems ever instituted is the one now employed at the Philadelphia Central High School, of this city. Class rooms are changed hourly, and pupils go from the first to the second or third floor, and so secure muscular exercise and a change of air. Our Alma Mater is to be congratulated upon this system, which does more for her boys than parents or guardians can at first thought fully estimate.

Herein lies the secret, coupled with the valuable advice of Dr. RISLEY, and we cannot repeat it too often, viz: "Our children are placed at school at a too tender age." *Our children are compelled to sit still too long at one time. They must use their eyes for fixed near as well as for fixed far points, while surrounded by various sorts of embarrassing influences, such as bad air, improperly arranged light, dazzling glass partitions, etc., etc. They must use their eyes all day under unfavorable circumstances, and after dark by artificial light as well. They are limited as regards their motions, the exercise of their limbs and voices, the exercise of their animal functions, the amount of fresh air they breathe, etc.*

Dr. JAS. COLLINS, of this city, recently called our attention to two cases which serve to illustrate the dangers of keeping children sitting too long in one place, and so limiting their motions. In one girl, a serious impaction of feces occurred, because, at school, when she wished to relieve the bowel, she was compelled to sit still, and when she was finally allowed her liberty, the

desire had passed away. Day by day this thing went on, until the Doctor was summoned to find the bowel packed with fecal matter. In another, an ambitious girl came home from school complaining of being unable to pass her urine. Why? Because the bladder had not been emptied, and becoming enormously distended, was paralyzed. A severe and dangerous inflammation of the bladder was the result of this child's being unable to secure an opportunity of emptying her bladder at times when nature made the demand. These are seemingly trifling affairs, but they count in the life of a child. Would that most of the teachers of our schools for children could dispense with the rule and precept, and the dogmatic systems of educational methods, and use their common sense, and make practical application and teach what they know of human physiology. Better let the drawing, the music, the algebra, etc., etc., go, and give our hard-worked teachers more practical knowledge and less of the fine arts. Give them more holidays and our children too. The old saying, "All work and no play makes Jack a dull boy," is too often forgotten.

Innocent little children, with their confiding, it may be precocious dispositions, which are most pliable on account of tender age, are sent from home, from parental influence, from their mother's knee, to school, to meet older children, not always possessed of the best habits and language, to grow up and have their characters moulded by external, surrounding (school or street) influences, to be under the care of teachers who, as a rule, do their best at their arduous employment. Admitted each teacher does her full duty, the classes are so large, that, *while acting as a nurse*, she can, at best, devote but little time to each especial child, and its on the one hand precocious, or on the other phlegmatic, peculiarities. Why, then, do parents send their children to school so soon? The answer may be divined from what we have already said: Because they want to get rid of them. Their prattle, their mischievous ways, their wants and their fancies, consume too much of busy papa's or giddy mamma's time, and alas too much of their patience. They seem to want these little, restless, brayant members of the coming generation anchored in some harbor, where each little craft may ride safely, but not lazily, at anchor, and gradually become barnacled by disease, and have its essential parts twisted and warped by the elements of external influences, simply for want of active and varied service in the sunshine and atmosphere of suitable surroundings.

Here, however, we would pause. Many who would prefer it, cannot have their little ones with them. Many parents must go to work; to the mill, to the forge, to the laundry, to service, etc., etc., and toil for their daily bread. Their children *must* be cared for. They should be well cared for, too, that they may grow up to be equally strong, physically and mentally. They, with other little children, who will be sent to school, *must have fresh air and freedom of motion; must have nursery schools, kindergartens, and such; and these once established, more children would be taken from the streets and alleys, and be saved morally as well as physically.* What is a too tender age? All the way from four to ten, and even twelve years of age boys being, however, two or three years in advance of girls; all, however, depending upon the child's disposition. *Healthy children were never known to sit still for any length of time; the mere fact of their being still often suggests the thought of their not feeling well.* To compel them to do so for more than one hour at a time, is a crime against the coming generation, and against fair Hygeia's laws.

We cannot conclude without referring to one other practical point made by Dr. RISLEY,* in his Report, wherein he states:—

"One fact, however, has not yet been dwelt upon with the urgency which its importance demands. Allusion is made to the bad condition of the eyes in the primary classes. Myopia is shown to be on the increase, and other forms of disease increase at eight and a half years of age, even in emmetropic (normal) eyes. The lesson it is desired to impress just here, is, that in the eyes of these young children was being laid the foundation, in intra-ocular disease, for a future myopia. Protected at all other points, by the watchful care of parents, they had nevertheless been subjected to the duties and cares of their early school life without a thought regarding their eyes, without the most cursory inquiry, except in rare cases, being made as to whether the eyes were fitted to perform safely their important function." Consequently, he, in this connection, concludes, therefore, "that before entering school the possible existence of defective vision should be excluded."

Finally, we can, on the authority of Dr. RISLEY,

"Comfort ourselves with the observation that, injurious as our school work is, and bad as is the outlook for the future of the eyes of our school children, it is far better than in the Russian schools; while a comparison with the German tables would show even greater cause for congratulation."

The question, *sub judice*, should not only attract the attention, but also deeply interest all parents, teachers, physicians, and those interested in edu-

* loc. cit., p. 686.

cational matters. The subject matter, i. e., the defects in our educational system, buildings, etc., and their relation to the defects of sight in school children, wants ventilation, and should excite criticism, for well might it be discussed under the popular title of one of "The Dangers and the Duties of the Hour."

EXPERIENCE OF A RED-BLIND PHYSICIAN WITH THE OPHTHALMOSCOPE.

Dr. W. S. LITTLE, of Philadelphia, mentions the case of a physician who was color blind (red blind), and narrates his experience with the ophthalmoscope. He was enabled, through Dr. LITTLE's instructions to study the fundus oculi in the negro, whose eye ground presents a grayish reflex; in contradistinction to the red reflex from the eye ground of a white person. In endeavoring to recognize the normal fundus in the eye of a white person, he stated that it presented to him the following appearance: The reflex appeared to him as the sky, bluish; the papilla optica or nerve, white, and the vessels in and upon it, as dark lines; the darker lines being the veins. In a case of marked kerato-iritis, with the cornea largely injected with blood, appearing very red, he failed to see the color. Dr. LITTLE also says, color blindness has its advantages as well as its disadvantages, and mentions as a PRACTICAL ADVANTAGE OF COLOR BLINDNESS, the ability of those so affected of becoming skilled engravers, and says: "youths knowing they are color-blind, can adopt the engraver's art as a means of livelihood, and advance the art of engraving, which is so productive of pleasure to those who are not color blind (*Arch. of Ophthal.* Vol. x, No. 1).

Dr. R. JUST, of Zittau, Saxony, makes

A CONTRIBUTION TO THE STATISTICS OF MYOPIA.

He italicises the following pertinent remarks: "*Myopia being as frequent in the new schools of Zittau, as in other educational institutions of the same kind, we may fairly conclude that it does not chiefly result from insufficient illumination of the school rooms, but rather from the great and ever increasing demands on the industry of the pupils at home, forcing prolonged labor on their eyes during the evening hours, frequently, by insufficient artificial light.*" He then goes on to say, "I am far from underrating the dangers of bad sanitary condition in the school room, but would urge the necessity of disencumbering our children's eyes of as much evening work as possible." (*Archiv. Oph. and Otol.*, Vol. -x. No. 1, translated by H. KNAPP.)

ON THE APPLICATION OF ELECTROLYSIS IN OPHTHALMIC THERAPEUTICS.

By A. NIEDEN, of Bochum (translated by Isidor Furst, New York.) He recommends electrolysis for angiomas of the eyelids, and says, thanks to the observations and experiments first made in 1831, by ALPHONSE GUÉARD upon the equally inaccessible aneurisms of the larger blood vessels, we have another mode of treatment in electrolysis. He uses a portable constant apparatus, made by KRUGER, of Berlin, after the model of SPAMER. He always employs *bipolar percutaneous electrolysis*. He uses both needles, and adds, my view corresponds with that of ALTHAUS* who also advises to introduce only the negative needle into the angiomas, and says he never saw any injurious effect, despite a great temporary bulging of the tumor, by the developing of gas bubbles during the operation, from the brief existence of this hydrogen. In recapitulating the advantages derived from the different modes of application of the electrolytic current, we find, with reference to its coagulating and caustic effects, that they consist in: 1st. Its applicability for the removal of neoplasms where other means fail or are of too uncertain and dangerous a nature. 2d. Tumors, cavernomata, angiomas, telangiectatic tumors, may be destroyed without entailing a loss of substance of the normal covering. 3d. The extent, the effect sought to be attained, may be accurately determined by the number of the needles introduced, the number of the cells, the duration of the application, and the strength of the electric current. 4th. We may operate almost without any loss of blood, by employing some degree of care in withdrawing the platinum needles, and, moreover, the pain is generally very moderate. 5th. The application is easily learned and quite free from danger; it alarms the patient less, on account of the simplicity of its manipulation, than any other surgical procedure. Finally, regarding the employment of the constant current as an alternative remedy which induces absorption—in which quality it may be looked upon as electrolytic—it has been recommended mainly for the clearing up of corneal opacities, absorption of iritic membranes, etc. QUADRI, of Naples, TURK, WILLEBRAND, of Helsingfors, v. GRAEFE, MEYER, and CHVOSTUK, claim to have secured quick and important results in the above named affections, by applying the negative pole to the closed eye, and the positive pole to the hand or mouth, and by galvanization of the sympathetic

* J. Althaus. A Treatise on Medical Electricity. London: Longman & Co. p. 301.

nerve. My observations did not furnish the favorable results reported by these authors. I could demonstrate neither a quicker nor a more perfect clearing up of corneal opacities, no matter in what form these currents—necessarily very weak in these cases—were applied.

Neither can I concur with the observations of v. GRAEFE (*Deutsche Klinik*, 1852, p. 445), who was able to effect the quick absorption of a cataract by the application of the constant current" (*Archiv. Ophth.* Vol. x, No. 1, p. 26).

We have frequently been consulted in good earnest, by men of good standing, concerning the treatment of cataract by absorption or the use of the constant current, but the experience of such men as NIEDEN, KNAPP, and others, goes to disprove the efficacy of this method of treatment, which can only be recommended as a novel placebo, the employment of which is ridiculously charlatanic, if not altogether dishonest.

Dr. S. C. AYRES, of Cincinnati, reports two interesting cases of

RETINO-BULBAR HEMORRHAGE.

In one it occurred in the case of a woman aged 56, who was operated on (iridectomy) for absolute glaucoma. She recovered and V = $\frac{3}{8}$. Three years later, having gone to bed as usual, she was aroused soon after with a pain in one eye. She got up and used a camphor lotion, and took two compound cathartic pills and soon after commenced to vomit, having been accustomed to occasional attacks of nausea and vomiting. The eyes became prominent and vision failed, and finally disappeared entirely. In the other, it occurred in a coal-heaver, aged forty. The exophthalmus was not so great as in the first case, and having had no previous eye trouble, no such disastrous results followed. Treatment: rest, compress bandage, and the occasional use of cathartics (*Archiv. Ophthal.*, Vol. x, No. 1, p. 43).

Dr. J. HIRSCHBERG, of Berlin, says of

MALIGNANT TUMORS OF THE EYE,

that they are not only important in themselves, but also for the light they are apt to throw on obscure parts of general pathology. In 1864 VIRCHOW published his fundamental work on tumors, and declared that in the clinical observation of their course and character everything was still to be done. Ophthalmologists have recognized his teachings, and having exact methods and fortunate circumstances for diagnosis, have applied them to the eye and furnished important contributions to the development of clinical onkology.

As early as 1868, v. GRAEFE, KNAPP, and others described minutely the etiology and clinical

course of the principal tumors of the eye, and showed that they were localized new formations, and by this discovery threw light upon many questions as to the general nature of tumors. They furnished, especially, examples of the general law of VIRCHOW, that malignant tumors begin as localized affections, which, if removed at an early stage, never return. They spread to distant parts by dissemination and metastasis. Dr. HIRSCHBERG confines himself to the three principal forms of tumors in the eye, *glioma retinae*, *sarcoma uveae*, *melano-sarcoma* and *carcinoma præcorneale*, illustrating them by clinical histories and lithographs of microscopical specimens, and the article as translated by Dr. W. C. AYRES, of New York, cannot but fail in attracting the attention of all pathologists. (*Arch. Ophthal.* Vol. x, No. 1).

ON QUININE AMAUROSIS,

Dr. E. GRUENING says, "almost every modern text-book on ophthalmology contains in its chapter on toxic amblyopia and amaurosis some general remarks on the occurrence of blindness, after an overdose of quinine. If we collect the recorded cases upon which these general statements are based, we find that the material is rather scant. By searching the literature, I have been able to collect eleven cases.*

The first case on the list (Giacomini, 1841, *Annal. Univers. di. Med.*, quoted by Binz, in the *Real-Encyclopædia der Gesamten Heilkunde*, edited by A. EULENBURG article "Chinarinden,") has never before been cited in ophthalmic literature. If a physiological experiment on man had been instituted with due care, and with the elimination of every possible source of error, it could not prove more conclusively, than does this case, that temporary blindness may result from an overdose of quinine.

A man aged forty five, suffering from constipation, took, by mistake, three drachms of sulphate of quinine, at one dose, instead of cream of tartar. Within an hour he felt great pain in the head, stomach ache, dizziness, general debility, and finally became unconscious. The face was pale; the lips and extremities livid and cold. The pulse was uniform, slow, hardly perceptible; the respiration sluggish. The pupils were very much dilated. When consciousness returned, sight and hearing had almost entirely vanished, the

* 2, 3, 4, 5, Briquet. Four cases of incomplete amaurosis, quoted by Binz (l. c.)

6, 7, Graefe. Two cases of quinine amaurosis, *Arch. f. Ophthal.* Vol. III, part 2, p. 390.

8, Voorhies. Temporary blindness from quinine. *Transactions of the Am. Med. Assn.* 1879.

9, DeWecker. Ocular Therapeutics. Translated by Litton Forbes. Quoted by Roosa.

10, 11, Roosa. Poisoning from the use of the compound tincture of cinchona. 2. Amblyopia from quinine (?) *Arch. Ophthal.* Vol. VIII, No. 5 and Vol. IX, No. 1.

general prostration and the weakness of sight and hearing lasting a long time.

In some of the cases on our list the authors themselves were in doubt as to whether the disturbance of sight was really attributable to the action of quinine. Thus, GRAEFE says that in his cases some predisposing causes may have been present, *e. g.*, the condition of the blood in malaria, the accumulation of pigment granules within the cerebral vessels, etc., etc. ROOSA publishes his second case of quinine amblyopia (?) with an interrogation point.

If I now record my case as one of quinine amaurosis, I do so because, in the first place, I can exclude other possible causative factors without strain, and because, in the second place, I find in the few well observed and more minutely reported cases of quinine amaurosis a number of parallel, I may say pathognomonic, points which stamp this affection as one *sui generis*.

GRUENING'S CASE.—Woman aged thirty-five, threatened with a miscarriage at about the sixth week of gestation. Slight flow of odorless blood from uterus for several days. Discharge then became fetid and contents of uterus were removed artificially. This procedure was followed by a rise in temperature (106 F.) Sulphate of quinine was administered in ten-grain doses. Altogether eighty grains were given within thirty hours. After the last dose she had a convulsive fit, characterized by twitching of the facial muscles, and jerking of the extremities. She did not lose consciousness during the attack. After the attack had passed, she was found to be totally deaf and blind. Gruening saw her and found pupils dilated. Accommodative contraction, however, was clearly demonstrable when the patient was caused to make a strong convergent effort. Refractive media clear. Optic disks were very pale but transparent, and their outlines well defined. The retinal vessels, both arteries and veins, so attenuated, that, in the inverted image, they could scarcely be perceived. In the upright image the vessels were distinguishable as continuous, exceedingly narrow bands, tapering into fine points somewhat abruptly. The slightest pressure upon the eyeball sufficed to render all the retinal vessels absolutely bloodless. At the macula of each eye there was a cherry-colored spot, surrounded by a zone of bluish-gray opacity. The corneæ were not anæsthetic (case of Voorhies). The blindness was absolute. The bright light of an argand lamp, concentrated upon the eye by means of a convex lens, was not perceived. No phosphenes by pressure. No specific reaction of optic nerve by the galvanic currents. Temperature 110½°. Pulse 120, very feeble. Constant noise in head interfered with hearing. Heard watch on contact. No injection of tympanic membranes. No albumen in urine. Twenty-two days later the patient could discern the position of the window in the room. Three days later light perception re-

turned. Over a month later she read large type, although, on account of the occurrence between while of the menstrual period, sight was temporarily diminished. Letters appeared white, and on a black ground. She was totally color blind, objects appearing "as if photographed." The fields of vision enlarged, advancing concentrically, being, at the approaching return of sight, very much reduced by concentric limitation. Finally complete recovery of sight (chromatic sense restored), and hearing. Therapeutic agents were necessarily directed toward the reestablishment of retinal circulation. A generous diet, a recumbent position (the head on a level with the body), instillations of a one per cent. solution of sulphate of eserine, inhalations of nitrite of amyl, with the administration of digitalis."

We have, for want of space, been compelled to abbreviate the report, with remarks upon this most interesting case which Gruening has worked up most thoroughly. He concludes upon well-founded arguments, as follows:—

"We have eliminated hysteria, retinal anæsthesia, embolism of the central retinal artery, apoplexy of the optic nerve (Magnus), amaurosis following hemorrhage, uræmia and retro-bulbar neuritis as affections differing from quinine amaurosis in their onset, course, termination, and ophthalmoscopic appearance. On reviewing the unequivocal cases of quinine poisoning with amaurosis (Roosa, Wecker, Voorhies, Gruening), we find a remarkable congruence in their essential features. The patient after the ingestion of a single dose, or of repeated doses of quinine, in varying quantities, suddenly becomes totally blind and deaf. While the deafness disappears within twenty-four hours, the blindness remains permanent as regards peripheric vision, central vision gradually returning to the normal after some days, weeks, or months. The ophthalmoscope reveals an ischæmia of the retinal arteries and veins, without any inflammatory changes.

In view of the constancy of these symptoms, and the uniformity of the ophthalmoscopic picture, we are entitled to demand for this distinct type of amaurosis a recognized position in the pathology of the optic nerve and the retina." (*Archives of Ophthalmol*, Vol. x, No. 1.)

We have copied Gruening's italics verbatim, and would in this connection call especial attention to the study of this form of temporary blindness, always accompanied with temporary deafness, and note the fact that no authenticated case of permanent blindness nor permanent deafness is on record. When we take into consideration the hosts of those persons who abuse quinine, as well as the heroic doses of this valuable drug often necessarily prescribed, we must admit that if it be the poison that many would make it out to be, the blind and deaf victims of overdoses would be legion.

(To be concluded.)

CORRESPONDENCE.

Cerebral Lesions.

ED. MED. AND SURG. REPORTER:—

Having heard, even from physicians, who should know better, that a man who has lost a portion of brain substance must necessarily die, I am glad to report to your journal the following case that occurred in my practice:—

On the fourth of last December I was called to go thirty-two leagues out of town, to see a boy, sixteen years old, who had accidentally shot himself through the head. Telegram said: "Eug. F., wounded: brain out; send Dr. Gonzalez immediately." The accident had happened two days before, and nobody thought to send for a physician, believing the boy, of course, was about to die; but after twenty-four hours had elapsed and the patient was still alive, his relatives conceived the idea of possible recovery, and so they sent for me. I started as soon as I could, taking along with me my trephine case. I reached there on the fourth day after the accident, when he was feverish and in a comatose state, with the face so immensely swollen that he could not open either eye, and scarcely the mouth; he answered no question whatever while examining the wound. I learned it was inflicted by a Smith's revolver of large calibre: the projectile had penetrated the right temporal bone at the middle and anterior edge of its squamous portion, traversing the cerebral mass, passing underneath the longitudinal sinus, and finding its exit to the left of the union of the two parietals with the frontal. The total length of the wound was about four and a half inches; the orifice of entrance nearly three quarters of an inch in diameter; that of its exit a little larger. As I proceeded, I found the edges of either orifice ragged and obstructed by a large mass of cerebral substance, that at once I recognized by its peculiar color and consistence. The temporal hernia was in bulk as large as half a small lemon, and the other a little smaller; in the space between the two orifices I found a smaller one, caused by a piece of bone. I could detect four distinct pieces of bone; two belonging to the parietal one to the temporal, and a large one to the frontal. When pressing over the direction of the wound, the skull yielded to slight pressure and each bone could be seen to move separately. This was the condition in which I found the young patient on my arrival. With a compound comminuted fracture of the skull, with double cerebral hernia and some spicules of bone buried somewhere in the encephalon. Besides all this, the attendants had noticed, since three hours before my arrival, repeated contortions of the face, that I witnessed but once. I understood immediately that I had to deal with a compression of the brain caused by serous exudation.

I proceeded to treat him as I always do such difficult conditions, symptomatically; for I believe that any one who attends his patient, always according to treatment generally given by authors, frequently will fail. It is well for him to follow general considerations, but in regard to treatment, it cannot be marked beforehand. It

then the occasion for a surgeon to exhibit his

own judgment. Believing that the compression that commenced to appear was the most immediate and dangerous symptom, I prescribed a good dose of bromide of potassium, and two hours after some calomel, followed by a good dose of cream of tartar. I then commenced to use, for the immense serous effusion of the face, solution of muriate of ammonia, a drug in which many have no faith at all; but their failure is due, I believe, to not selecting the proper time for its application. If they use it when the effusion has become plastic, they will always fail, no matter how recent is the plasticity, but if they limit the use of the muriate to recent serous exudations before the plasticity is shown, they will not be disappointed, unless the part has been contused, and its vitality lowered; then I generally succeed with same, using beforehand some stimulating lotion. When once I had got rid of the symptoms of compression, I occupied myself with the wounds. I proceeded by examining the protruding brain substance, that was all lacerated, and wherefrom I extracted several pieces of bone that were there buried, without attempting to hunt more until they became visible. Some authors recommend to treat such cases by compression of the hernia, but in this particular, where the protruding brain substance was so lacerated, would it be prudent to use the compress when I knew that I had to wait for suppuration as the result of all buried and turned tissues? Certainly not, for if I had done it, accumulation of disorganized matter within the skull would have taken place and a sure death followed the proceeding; and as the patient had neither cough nor vomiting, I declined using the compress; but as the bulging hernia was occluding the orifices both of entrance and exit, I proceeded, cutting cautiously, little by little every day, the brain substance that formed the hernia, until I commenced to encourage cicatrization at the sides of the wound, getting at the same time rid of the bruised brain substance that could degenerate into pus, and as I have sliced repeatedly the cortical and upper part of the cerebral hemispheres, including deep convolutions that bulge out, having at the end the most happy result, I do not hesitate to recommend similar treatment to my professional brethren.

I write this ten months after the accident, and I cannot yet discover any change in his natural disposition, nor failure in any of his mental faculties. He is as well as he was a year ago.

Durango, Mexico.

V. GONZALEZ, M.D.

Is it a Case of Bright's Disease?

ED. MED. AND SURG. REPORTER:—

I report the following case for two reasons:—

1st. To show the insidiousness of disease and the care that is necessary to be exercised in arriving at a diagnosis.

2d. There is a difference of opinion with the medical attendants, one claiming that it is not Bright's disease.

Wm. L. M. L., aged forty one, complexion florid, medium height, and good weight; a man of irreproachable habits; he never used tobacco, or intoxicating liquors of any kind; no venereal disease or excesses. Until he arrived at the age

of twenty-one he worked hard at both manual and mental labor, since which time he has done little or no manual, but a very great deal of mental labor.

About ten years ago he lost his wife, under very peculiarly painful circumstances, and it was a great shock to him, from which he has never completely recovered.

About eight years ago he had a hemorrhage in the left eye, and was blind of that eye for a long time, but eventually regained the sight. Again during this period he was confined to the house for a couple of days with what might have been acute articular rheumatism of the ankle joint. Aside from the troubles given above, he was one of the healthiest men of the town. I have often heard him say that he did not know what it was to get tired. He has been a thorough and very active business man; attending to a number of estates, a bank director, etc. etc.; always prompt. So much for the previous history, now for the present attack.

Last spring, it was noticed at the bank that he was not attending to his business with his marked promptness, but when pressed, would attend to matters as well and sharply as he ever could. He also says that he had the desire to put off anything that required any exertion of mind or body. Thinking that he might derive benefit from sea air, he went to the port of New York, and spent in the neighborhood of two weeks on a pilot boat, coming home very much refreshed, but soon dropped back into the same state of lethargy. It was also noticed that he was losing flesh, although not very rapidly. During June, while in the Anasable Chasm, he underwent great physical exertion, and noticed that he strained his back. On October 7th he came to my office, and put himself under my care; upon examination I found the following state of affairs:—

He informed me that for some few weeks he had difficulty about breathing when in a recumbent posture, but that a cloth saturated with camphor gave relief. Also when he ate too much that he would have to throw up a very little. Physical examination showed mitral obstruction and regurgitation. Liver healthy to all appearances. No pain in the kidneys upon pressure. Urine specific gravity, 1.006; passed normal quantity; no trouble to pass it; caused a little difficulty if he attempted to hold it too long; albumen about 1.24 by measurement in test tube; alkaline in reaction and showed no albumen until an excess of acid was added. On the 11th he was taken with a severe headache and vomiting, and has so continued to the present time, some days passing without vomiting, then he will again vomit. The urine has contained albumen all of the time. We have not been able to find casts, and only once a trace of casts when there were some blood globules present. For the last three days of his life the breath had the peculiar urinous odor.

The muscular twitching was never marked. He had the full use of all his senses until about forty-eight hours before his death.

There seemed to be suppression of the urine at the last, as I introduced a catheter and could get no urine to flow. A post-mortem was not

made. I hope that the history of this case may be of benefit to others, as it has been to me, and that I may get the opinion of readers as to what it could be, if not Bright's disease.

Glens Falls, N. Y.

E. W. HILL, M.D.

Communicability of Syphilis by Suckling.

ED. MED. AND SURG. REPORTER:—

Apropos of the above, in the case related in the *Giornale Italiano di Sessina* (1880 p. 15), I would mention three cases of syphilitic infection, in which husband, wife, and lastly infant suckling son, two years of age, were respectively and in the order of sequence named, infected.

One year ago last March, Mr. A. called upon me for my opinion of a slight abrasion on the glans penis, which from its suspicious appearance, hardened base, indolent and insensative glandular swelling in the groin, I had no hesitation in pronouncing a true Hunterian chancre, or syphilitic lesion, and warned him accordingly, in regard to the danger to his innocent wife.

Nothing was said to me at that time about the child, two years of age and suckling.

The confrontation occurred about one month prior to this time. He was put at once upon hydrarg. prot. iod. from grains $\frac{1}{4}$ –1 to 2, daily, after first applying a thick paste made of $\text{S O}_4 \text{ H}_2$ and charcoal. The initial lesion kindly healed, and was followed by the secondary symptoms which I had promised him, to prove my diagnosis. I should say in passing that he was as fully satisfied and happy (?) as one could be under the trying circumstances. The symptoms in his case were all quite light, from first to last; some abraded mucous patches in the mouth from time to time, which readily yielded upon the application of *lapis infernalis*, and not enough papular and pustular eruption in the face to "give him away." Not so with his "better-half," her symptoms being very severe. Since I was not permitted to diagnose and treat my fair patient, only through stealth, I had to depend upon my proxy. I had him, from the necessities of the case, educated up to be a most admirable diagnostician. Her lesion was in the pudenda, followed by a very severe sore throat, high fever, supra orbital pains and copious eruption.

As soon as I learned the child was nursing, and could, without exciting suspicion, I had the child peremptorily ordered from the breast. The husband being keenly on the scent, and she confiding, I was enabled to satisfy myself that there were no local lesions on either breast, this being my only hope and promise to him of immunity from infection to his child. He made repeated, intelligent, and searching examinations of her breasts, and asked her if they were sore, but could not find out that such had been the case in the slightest degree.

The child was light and fair skinned as the father, and similarly lightly affected, but unmistakably syphilitic, the eruption being characteristic, with prodromatic symptoms. I might say that I was treating no less than seven cases at this time, in all their different stages and varying symptoms. I had frequent and unobstructed access to the child, calling the disease what I pleased, and examining it, not always in the

presence of its mother, and asked the husband to look for similar abrasions as his own, or a single sore about the mouth—but never one.

Query.—Was this disease communicated through the mother's milk (we have authority for this possibility), or some of the secretions of the body?

J. D. LITTLEFIELD, M.D.

Somerville, Mass.

Curious Reduction of an Old Luxation.

ED. MED. AND SURG. REPORTER:

I desire through your columns to report a case of luxation of humerus of four years' standing, and its unusual termination, which presents some novelty.

Mr. Chas. Palmer, a farmer, aged about 60 years, luxated his right humerus, the head of the bone resting in the axilla, on Thanksgiving morning, four years ago, by a fall upon the ice. Ineffectual efforts were made to reduce it, and the bone left in its unnatural position; he, as a consequence, having an almost useless arm, both on account of its immobility, and the great pain it caused him.

After a period of five or six months the case came to my notice, and after a careful examination, I advised that it should be allowed to remain and accommodate itself to its new position, since which time he has consulted with other practitioners, but always with the same advice. The case has gone on now for four years, without interference, the arm gaining a little day by day, in mobility; but he has never been able to touch his head or left shoulder, nor raise the point of the elbow more than eight inches from his side, any effort in that direction being attended with most intense pain. On Thanksgiving day last, he was leading a high-spirited blind horse behind his buggy; the horse ran against the wheel, and becoming frightened, sprang back with great force. Mr. Palmer had the leading strap wound round the wrist of the lame arm, which was drawn upward, backward and downward, with two-horse power; the horse before the buggy being counter extension, while the blind one was the extending power.

The power was applied upward and backward when the animal was in close proximity to the patient; downward and backward, when the full length of the strap was attained, and the power in front had bent the body forward on the seat. Mr. Palmer was most terribly hurt, so much so, that it was with difficulty he reached his home and bed. After a rest, the pain gradually subsided, and upon arising, judge of his surprise to find that the old stiff shoulder was stiff no more, but could be moved in every direction as freely as before it had received any injury, except for a less amount of tenderness than had been constant for four years. The case has progressed favorably since that time; the arm is growing daily stronger and more useful; the muscles of arm and shoulder had become considerably atrophied, but are rapidly regaining their former proportion. I report this case because it is an innovation upon the established theories, and because the facts in the case are so well established. I do not know that I should hitch two horses to a patient under similar cir-

cumstances, but it does open a way to a more thorough test of such cases than I have heretofore considered myself authorized to use.

La Moille, Ill.

GEO. J. RICE, M.D.

An Amphibious Young Woman.

ED. MED. AND SURG. REPORTER:

I lay the following item before my professional brethren, as much for the sake of professional variety, as for that of information. Nevertheless, it may serve for a provoker of deductions:—

While practicing medicine near Mount Airy, Md., I was called to see Miss E. S., residing west of Clashtown, Pa., on the Chambersburg turnpike, near the foot of South Mountain.

I had previously been informed of the amphibious character of the case, by a lady from that neighborhood, who was sojourning at a friend's, near Mount Airy, and whom I happened to be attending at the time.

On my way to the patient's house, I called at the residence of Dr. John Carpenter, within two miles of the place, and invited him to visit the case with me. This I did because Dr. Carpenter was a man of sterling integrity, and, hence, I could feel confident of any statement he might testify to, as to so peculiar and strange a pathology.

We arrived a few minutes after our patient had left her bath, and while her nurse was arranging her hair and placing the bladder of ice on her head, which had ever to be there when she was on "dry land."

When I commenced my examination I found I should have little trouble, in consequence of her charming intelligence and conversational qualities. I found no organic lesion, and very little if any functional disturbance. The appetite and functions were good and regular.

On inspecting her bath fixtures, I found a pool of cold water in an adjoining room, fed by a spring at the foot of the mountain. And one feature of her idiosyncrasy was that this pool must have ice in it the year round.

Upon inquiry as to the amphibious nature of the whole thing, I found that about nine years before she had been advised by a friend to bathe once a day, for some slight nervous trouble. She conceived the idea that twice a day might facilitate the cure, and so she went to thrice a day, and so on, till she had for six years been doing as I had found her. She had actually been going under the water about twenty to twenty-five times a day.

Here is her "modus operandi": "She would take four or five bathing spells a day, and would be thrown (not slid down quietly), into the water four to five times at each spell.

I must confess that the allowance which I had previously made for exaggeration and my incredulity, both vanished at the sight of facts, and Dr. Carpenter, their family physician for a number of years, said it could not well be exaggerated. He asked me how I accounted for it? I took my tobacco out of my pocket, and asked him how he accounted for my ability to chew that? "O! yes," replied the old gentleman, "I see, I see; force of habit, force of habit." He requested me to name the disease. I laughingly remarked that if he would allow me to

coin my terms I would do so. He agreed, and I called it a case of amphibio-nervo-psychological nonsense. He said he did not think my dictionary could be improved.

She was anxious to be cured. I drew heavily on her reasoning faculties, and finally convinced her that strategem alone could relieve her, and at once proposed my plan of treatment. She was much pleased and appeared to feel hope revive. Here was my method:—

Compose her to sleep awhile before the morning bath was demanded, and so continue to cheat her out of one bath the first week, two baths the second week, and so on, till done. She was delighted with the idea, and I proposed, as I resided about fifty miles away, that Dr. Carpenter superintend the treatment. This was satisfactory, and I left him to decide the sleep producer, only advising no preparation of opium. A brain and nerve food diet was also decided on, and the choice of that left to Dr. Carpenter.

I heard casually of her some time after, until I removed to the Mississippi Valley: and while there I heard she had got out of her amphibious mode of life, and was enjoying good health, though not very strong.

Now there is one thing that has occurred to me in connection with this case, and it is given only for what it is worth: as habit brought on this trouble, might we not bring habit to bear in curing many nervo-mental disorders?

P. J. GARDINER, M.D.

NEWS AND MISCELLANY.

Medicated Spectacles.

The Boston *Journal of Chemistry* observes that although a good deal has been said recently about "toughened" glass, the "toughest" story about glass appears in the advertising columns of a newspaper printed in a Southern city. Down there it seems that spectacles are made of "medicated glass," which has been analyzed by French, German, and American oculists, and pronounced to be "superior to any glass as yet made." Here are a few of the advantages of this vitreous marvel:—

"(1) The chemicals soften the light to the eye, completely doing away with that tiresome sensation that is usually experienced in using glasses after one or two hours' use.

"(2) The medicated properties contained in the glass make it as hard as a diamond. It will retain its polish, and never become dull or dim; hence you will always see through it as bright and clear as at first.

"(3) The chemicals keep the glasses cold as ice; result is, your optic nerves always cool, doing away with any feverish sensation to the eye."

What is quite as extraordinary, "granulated and sore eyelids" are "cured" by using the glasses. Whether they will enable the blind to see is not stated; but it would seem that but a slight "improvement" in the glass can be required to bring this about. That so transparent a humbug should thrive sufficiently to justify a "big" advertisement in a city daily is almost incredible; but the gullibility of the human race is apparently boundless.

A Good Suggestion.

Dr. L. Damsainville, in a letter to the *Medical Record*, suggests that some one should, in the interests of medical science, gather into one volume—or a dozen volumes, if necessary—all the plans of treatment which would, beyond a question, have saved the life of our late President; including all the plans proposed by newspaper editors, medical men, and the thousand or more suggestions contained in letters written to the doctors while they were in attendance upon their distinguished patient. Who can estimate the value of such a contribution to medical science and to humanity?

Personal.

—Dr. George E. Walten, the well known author of "Mineral Springs of the United States and Canada," has located at Jacksonville, Fla., and will give his professional attention to any patients who may be recommended to his care.

—Several Louisville physicians are mentioned by name in a very effusive card in the *Louisville Courier-Journal*. The writer is a Methodist minister. Such a method of obtaining publicity is disagreeable to upright physicians, and a clergyman, at least, should not lend himself to it.

QUERIES AND REPLIES.

Boracic Acid.

Mr. Editor:—If you or any of the readers of your journal can inform me of the evil effects that would arise from the use of Boracic Acid as a preservative of meat, fish, etc., I will esteem it as a favor. E. FOSTER, M.D.

Dr. B. F., of N. Y.—You will find the *mirabilia* previously given in Queries and Replies.

Dr. S. K., of O.—We do not keep any books on sale, except our own publications. We are, however, at all times, willing to buy and mail you any works in the market. In such case, you should send us, with your order, the retail price of the book.

MARRIAGES.

CAMPBELL—LYON.—In the First Presbyterian Church in Williamsport, Pa., on Thanksgiving evening, November 24th, by Rev. S. E. Webster, Eugene B. Campbell, M.D., and Jennie Priestly, daughter of Dr. Lyon.

HERITAGE—CLARK.—On the 6th inst., at the M. E. Parsonage, Mantua, N. J., by the Rev. W. Williams Christine, Paul S. Heritage, M.D., and Miss Emma M. Clark, daughter of William W. Clark, all of Gloucester county, New Jersey.

HILL—BRUCE.—December 7th, 1881, at St. Paul's Church, Brookline, Mass., by the Rev. R. Kipp Storrs, Dr. John Marshall Hill, of this city, and Miss Louise Prentiss, daughter of the late Benjamin Bruce, of Brookline, Mass.

MOORE—KELLEY.—In St. Johnsbury Centre, Vt., Nov. 22d, by Rev. J. Hammond, William M. Moore, M.D., of Lower Waterford, and Emma Kelley, of Johnsbury Centre.

RANSLEY—HOGG.—In this city, on the 7th inst., at the residence of the bride's mother, by the Rev. Hugh O. Gibbon, D.D., Dr. A. W. Ransley and Maggie A., daughter of the late Alexander Hogg, Esq.

DEATH.

WELCH.—In this city, on the morning of the 27th instant, Dr. John C. Welch, aged sixty-four years.